The new trends in cognitive behavior therapy for anxiety disorders:
Acceptance and Commitment Therapy

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Declaration of interest

- The speaker’s has/had research contracts with Fujimoto, GSK, Janssen, Lily, Mochida, Shinogi, Solvey, Suntory, UCB, Wyth, for last 5 years.
  - Have been involved in around two dozen antidepressant trials.
- This is a Luncheon seminar sponsored by GSK.

Warning
This presentation may cause disgust
Efficacy of paroxetine for the long term treatment of Generalized Anxiety Disorder

<table>
<thead>
<tr>
<th></th>
<th>Placebo (n=285)</th>
<th>Paroxetine (n=274)</th>
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<tr>
<td></td>
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<td>*p&gt;0.01</td>
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<td>**p&lt;0.001</td>
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Single blind Paroxetine treatment phase

Double blind treatment phase

Remission: HAM-A score <=7

Stocchi F et al. J Clin Psychiatry 2003,64;250-258
Acceptance and Commitment Therapy

Steven C. Hays, Kelly G. Wilson
- Acceptance and commitment therapy: Altering the verbal support for experiential avoidance.
- Behavior Analyst Vol. 17, No. 2, 1994

Steven C. Hays, Kirk D. Strosahl, Kelly G. Wilson
- Acceptance and commitment therapy: An experiential approach to behavior change
- Guilford Press 1999
Accept
• Unwanted research evidences
• Undesirable health care outcomes

Choose
• Experimental behavior analysis
• Rule governed behavior / contingency shaped behavior

Take action
• A GAD case
• After ACT
• Why placebo works
• Future
“I don’t care about your stinking study. This time, it better not be the placebo.”
Scientists are optimistic

Cumulative record of my presentations

- Systematic Desensitization
- Social Skills Training
- ERP for OCD
- Cognitive Therapy
- EMDR
- Treatment Manual
- Substance Abuse
- Twelve Steps
- Community Reinforcement
- GAD
- Motivational Interviewing
- MATRIX
- Complicated Grief
- ACT
Big pharmas are too
FACTS ARE DEPRESSIVE
DO MED WORK?

- Major Depression: OCD, SAD, GAD
- Slight >=35%
- Response >=50%
- Recover >=65%
DO I IMPROVE?

My treatment outcome on OCD

N of Pt.  Y-BOCS reduction
What are your thoughts?

- Accept the facts?
- Deny the facts?
  - My own clinical experience tells...
  - The subjects were not appropriate.
  - Dr. Harai is hostile to meds.
- And start collecting supporting arguments, “Because, he is a behaviorist doing scary exposure to patients.”
Accepting

LANGUAGE Scientific
- Number of
  - Mental disorders
  - Therapeutics; Drugs CBTs
  - Evidence

FACT Experienced
- Suicide: Increased
- Antidepressants
  - Placebo drift
- My CBT:
  - The same outcome
- Patients: Increased

So far we are not good at controlling the outcome by Science = Language

Categories
- Rules
- Chemicals

Methods
- Knowledge
"So I manded him..."

"She negatively reinforced my behavior..."
Verbal Behavior

- Behavior analysis sees function, not content of language

  MAND            TACT
  Order, command  describe, observe

- If you deny the previous slides;
  – Gee, shut up. I am not interested.

- If you accept;
  – I feel uneasy. He is testing me. Wonder the consequences.
A kind of TACT which describes contingency.

- If you listen, your GAD pt will get better.

**RULE** following behaviors

- **PLIANCE**: compliance to established rules given from our language community
- **TRACKING**: following one’s arbitrary rules
- **AUGMENTING**: enhance the valence of future reinforcer or punisher
RULEs in medical language community

- You should do this, if not, you would be punished.
  - Informed consent, GCP, EBM, Guidelines
- You should not do this, if you did, you would be punished.
  - Ethical codes, Risk managers, Law suits, Defensive Medicine

Describing Negative Contingency
Reality is

Most of the rules produced everyday are descriptions of negative contingency.

And language cause conditioned emotional response. (CER)

- Not to me
- Only to Poor Colleagues in US
- The patient is exceptional
- My area is OK
- It is not my fault
- My spouse who manages
- It is my spouse who manages
- Shrinker
We learn from

#1 RULE
- Rule governed behavior
- You can avoid disappointment, surprise, variability like “Try and Error”

#2 Direct experience
- Contingency shaped behavior
- You expect disappointment, surprise, unexpected variability

Our emotional resilience on which?
Which is your choice as a lover?

Rule governed
- Read all literatures about cognitions, neuroscience, behavior analysis of love.
- Never lost love.
- Do not accept failure.

Contingency shaped
- Read only yellow journals, pop psychology books about love.
- Some painful lost loves, some positive ones, don't know why.

Do you have high level of oxytocin?
The hormone associated with the ability to maintain healthy interpersonal relationships.

Willing to be rejected, I don’t care about what would happen to me tomorrow. I know love is unpredictable. I just can not resist saying I love you.
Language is two-edged

Based on arbitrary learned relations that are controlled within relational frames:
- stimulus equivalence
- bi-directional relations

- Evolutionary advantage

- Expands the ability to feel, predict, categorize & evaluate

Makes behavioral avoidance possible and cognitive dominance

- Experiential avoidance and cognitive fusion

Amplified by culture

Relational Frame Theory
Stimulus Equivalence

A computer worm is a self-replicating computer program. It uses a network to send copies of itself to other nodes (computer terminals on the network) and it may do so without any user intervention.

Worms almost always cause harm to the network.
How do you feel?
How do you feel now?

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Worms almost always cause harm to the network.
Stimulus Equivalence
Experimental Behavior Analysis of Verbal Behavior
With this ability

- We can make a warning against a new cyber attack in an efficient way.
- Also, our emotions, love, danger, anxiety, depression, obsessions, worries.

However

- I feel sorry for Ascaris lumbricoides. They are never responsible for spams, Trojan horses, and phishing.
**RULES** in language

- spread by exploiting vulnerabilities in OS. Install regular security updates, then the majority of are unable to spread.
- I love you tricks you into running a malicious code. The use of a firewall is recommended.
Dominance of emotionally charged RULES cause

- **Fusion with your thoughts**
  - Language cause emotional response. You avoid word. Euphemism in your mind.

- **Evaluation of experience**
  - Judge by rules. Language loves dichotomy

- **Avoidance of your experience**
  - Human is good at avoiding direct experience

- **Reason giving for your behavior**
  - Most skilled are politician, administrators
Even a worm will turn
“Oh, now I get it. So, you don’t have a problem. You’re not crazy; everyone else is. Is that how you see it?”
Clinical Case

39 yrs old female, divorced, works full time as a psychiatric nurse.

CC: Worry if I were a schizophrenic. Feel depressed and tense. Want to take Cognitive therapy.

PH: Post partum depression.
Clinical Case (cont.)

History of PI: Age 35, promoted to a supervisor. Started to worry about criticism in work place, and her child. Visited a local psychiatrist, prescribed various drugs. No change.

Diagnostic Considerations:
Generalized Anxiety Disorder

HAM-A 22
Generalized Anxiety Disorder

- Persistent worrying, anxiety symptoms, and tension
- The most frequent anxiety disorder in primary care, 22% patients who complain anxiety
- Natural course is characterized as chronic with few complete remissions.
- Substantial comorbidity particularly with depression.
- It has been acknowledged for centuries, and the oldest among anxiety disorders. The nature and treatment for GAD is less clear than other anxiety disorders (Kessler, 2000).
Treatment strategy

- **CBT**
- **Pharmacotherapy**
  - Paroxetine
  - And/Or Scheduled use of long acting benzodiazepine
- **For patients abusing prn short acting agents**
  - "Benzodiazepine control therapy"
  - BZ is effective to suppress autonomic hyperactivities, whereas it has anti-exposure property and no effect on worry.
  - However, patients often use BZ when they feel anxious, that is when they have a worry.
  - Prevent private event contingent use of BZ.
  - Facilitate scheduled use of long acting BZ.
Behavior Therapy

- Daily self monitoring of worry and physical symptoms
- Activity scheduling
- Clinical interviewing focusing accepting uncertainty in life, choosing personal goals, and taking action.
- Etiological models of GAD (Ladouceur 1998) were explained.
  - Intolerance of uncertainty, Beliefs about worry, Poor problem orientation, Cognitive avoidance.
- During the interview, interviewer intentionally overly reflects the worry contents of the patient.
- This conversation is based on the skills of Motivational Interviewing. It is intended to conduct worry exposure with an empathic atmosphere.
Attending your own funeral
Her ideal condolence

- Socialized and active for 24 hours a day, 7 days a week.
- Sleep less than 6 hours, personal time is minimal, never idle away a second.
- Understand the most complicated order in a second, never needs other’s help.
- Others always admire and respect her.
- A true role model for our entire society.
A week later

- Now I see what my friends have told me for 10 years.
- I am no longer obsessed my ideal.
- I can have more realistic goals. I can appreciate small achievements I made for these months.
- Doc, give me more advice. You are a great therapist.
Behavior Analysis of Worry

A TACT describes unwanted events in the future.

**Trigger**
- Bad news in media
- Bodily sensation
- Mediocre dull life

**Emotion**
- I don’t want this
- Desire, Anxiety

**Worry: Thinking about**
- How “I don’t want this”
- Why “I don’t want this”
- What else “I don’t want”

**Rule seeking**
- Doc, give me more advice
Experiential Avoidance

Rule governed behavior is stubborn ignores the real world

Uncertainty → Rule seeking behavior → Rule found
Even a worm will turn
Even a worry will turn you down
You are suffering from leukemia

Many issues to solve
- If unsolved, I will regret
- If left as it is, I will depressed.
- If exacerbate, I will be inept.
- If no key to solve, I will die.

Future
- Don’t know
- Now is important.

What is important
- Find the best, certain predictable rules

Today’s goal
- Willingly experience worry, future mishaps

Future goal
- Take care of my kids.
- Eat, sex, move,
- Consume two months.
- Look back the past.

What is not important
- Advice, rules, certainty

You only have 2 months before death
Choose one
Her personal accounts after tx

- I was convinced that I was schizophrenic.
- Reading CT books changed nothing.
- Tx was self monitoring, worry exposure, listing personal values. Accepting symptoms and worrying willingly were a goal, but it was painstaking.
- Now, I realized that there is a place in the society even for me. Accept what I am.

http://homepage1.nifty.com/hharai/gad&pd/gad1.html
Other cases of GAD

<table>
<thead>
<tr>
<th>Age</th>
<th>Medication</th>
<th>Baseline</th>
<th>After</th>
<th>Reduction</th>
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<tr>
<td>F</td>
<td>Px</td>
<td>22</td>
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<td>Px+BZ</td>
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<tr>
<td>F</td>
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<td>23</td>
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<tr>
<td>F</td>
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<tr>
<td>F</td>
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<tr>
<td>M</td>
<td>Px</td>
<td>23</td>
<td>5</td>
<td>0.78</td>
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Px: Paroxetine  BZ: Benzodiazepine
Discussion

- As the table show our treatment program accepted and worked well for GAD patients.

- This study indicates some evidence to support the efficacy of our therapy. This is preliminary research, and we need further research to confirm our findings.
Core ACT Processes

Six Processes identified by Hayes, Strosahl, Bunting, Twohig, & Wilson (2004):

- Acceptance
- Defusion
- Self as context
- Values
- Committed action
- Contact with the present moment
What makes me to use ACT

I said

– My treatment outcome has not improved for OCD even after I learned ACT
– Behavior Analysis observes principle of parsimony
What makes me to use ACT

My treatment outcome on OCD

Outpatient

ACT style

Intensive exposure

Inpatient

N of Pt.

Y-BOCS reduction

Length of TX
Why

Before ACT
- Motivation
  - Persuasion, Threat
- Exposure
  - Decrease anxiety
  - Graded to avoid too much
- Cognitive biases
  - Corrected by logic and evidence
- Maladaptive Behavior
  - Replaced with Skills training

After ACT
- Motivation
  - Elicited, Affirmed
- Exposure
  - Increase anxiety
  - Jump to surprise
- Cognitive biases
  - Accepted and defused
  - Exposure to emotion
- Maladaptive Behavior
  - Choose from behavior repertoire
Explaining placebo response

CBT and SSRIs
Or other numerous txs
- The reason to cause depression
- The reason to recover from depression
- You should correct the reason

ACT
- The problem is looking for the reasons to recover.
- Placebo is risk taking
  - No reason to be better
  - Just take it for good ends
- HAM-D is exposure
- What works is what works
My wishes

- Recent advances and application of Learning theory are remarkable.
- ACT is one of the accomplishments
  - Rule Governance, Relational Frame Theory
- There are more others which may influence
  - Context Conditioning, Behavior Economics
  - Adjunctive Behavior, Behavioral Pharmacology
  - Optimization, Org. Behavior Management
Because I have a pain,
I can not work.
Doc, give me a help.

Because I am seeking help,
While avoid working,
I have a budget cut.

Because I have a budget cut,
I can not work,
Minister, give me a fund.

Because I am seeking fund,
While avoid working,
I have a budget cut.
Accept
- Serenity to accept the things I cannot change

Choose
- Wisdom to know the difference

Take action
- Courage to change the things I can
Final note

Thanks Prof. Iyo

Q & A

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http://homepage1.nifty.com/hharai/
Treating private events

- **Washing and Checking** are *Public events*
- **Private events**
  - Pure obsession in OCD
  - Shame in SAD
  - Bodily sensation in PD
  - Regret in MDD
  - Worries, Thoughts suppressed in GAD
  - Memory in PTSD and Complicated Grief
  - Paranoia, Hallucinations in Psychosis
Many ways to describe thoughts

- Obsession
- Cognitive bias
- Early maladaptive cognition
- Schema
- Traumatic memory
- Paranoia
- Belief

Verbal behavior in your Brain you are struggling with
The content of thought is not the problem.
The feeling you are avoiding
The control / coping you are using and seeking is the problem
Cognitive BT
- Classify
  - Matches to Medical Model
- Explanatory
  - Etiological Model

ACT
- Extinction is also new learning as well as conditioning
  - Violation of reinforcer expectation
    - You had NOE, experience PO, will have POE
    - You had only POE, experience PO, will have?