The Art and Science of Behaviour Change in Chronic Disease Management

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Learning Objectives

• Describe empirically based behaviour change principles and skills for chronic disease management
• Explore issues related to the “real-life” application and implementation of behaviour change skills
• Review data from research program on training healthcare providers in chronic disease management skills

The Problem

The challenge of poor adherence

Adherence to Health Behaviour

• Eats more than 1 fruit and 1 vegetable per day
• meets weekly aerobic physical activity recommendations
• has a body mass index <25 kg/m2
• What percentage of US citizens engaged in all 3 behaviours? 12.5%
• What percentage history of stroke in all 3 behaviours? 8.1%

Source: Bailey et al., 2019

Raise your hand if you:

• Don’t smoke.
• Eat 5 servings of fruits or veggies per day.
• Limit foods and beverages high in calories, fat, sugar or salt.
• Get 30 minutes of physical activity per day.
• Get 8 hours of sleep per night.
The Science

Evolutionary Science
We have evolved over time to:
• seek pleasure
• avoid pain
• do the thing that takes the least amount of effort
• live for today

Evolutionary Science
Healthy behaviour requires us to:
• avoid pleasure
• accept pain
• do the thing that takes the most amount of effort
• live for the future
• Healthy behaviour is abnormal!

Evolutionary Science
• Paleomammalian brain
• Built for survival
• Functions automatically and unconsciously

Executive functioning
• Pre frontal lobe
• Controls behavior
• Like a battery
• Individual differences in capacity

Evolutionary science: The adaptiveness of weight
“No Roofs, No Roads, No Bread: Cyclone Causes Emergency in Southeastern Africa”
• Tomorrow: weigh 395 lbs
• Next day: weigh 179 lbs
• Next day: weigh 205 lbs

We don't control our weight.
We can influence our weight but we don't control it.

THE NEURONAL RESPONSE TO VISUAL FOODS CUES


Pre-frontal cortex
• impairments on executive function
• inhibition
• cognitive flexibility
• working memory
• decision-making
• verbal fluency
• planning
• Individual differences; Bi-directional influences

Source: Lowe, Reichelt, & Hall, 2019; Yang et al., 2018
COVID-19

Caveman brains are on fire

Frontal lobe batteries are spent

The science of ACT

• American Psychological Association, Society of Clinical Psychology (Div. 12), Research Supported Psychological Treatments:
  • Chronic Pain - Strong Research Support
  • Depression - Modest Research Support
  • Mixed anxiety - Modest Research Support
  • Obsessive-Compulsive Disorder - Modest Research Support
  • Psychosis - Modest Research Support
Empirically validated

- Trans-Diagnostic
- As of May 2019, there are 304 randomized controlled trials (RCTs) of ACT published.
- Pain, Depression, Stress, Anxiety, Weight Loss, Substance Abuse, Smoking, Cancer, Eating Disorders, Social Anxiety, Psychosis, Epilepsy, Borderline Personality Disorder, Diabetes, Tinnitus, Parenting, Stigma, Trichotillomania, OCD, Prevention, Trauma, Procrastination

ACT for obesity


Stigma and well being

- 1 day workshop
- 3 mos follow up
- less psychological distress
- better quality of life
- lower levels of weight-related stigma

“Acceptance”

- “to receive what is given”
- Acknowledged and coping with what cannot be solved/fixed/eliminated:
  - Emotional experiences (e.g., anxiety, sadness, anger, fear)
  - Thoughts (e.g., “I’m worthless”)
  - Memories (e.g., traumas)
- Other people (“If she would just stop doing that, we would be okay”)
- Chronic conditions (e.g., obesity, diabetes, chronic pain)
- Outcomes (e.g., weight, blood pressure, getting hired for a job)

Problem solving is normal

- Normal brains want to problem solve.
- Caveman mind excellent at problem solving the external environment
- It’s natural to try to problem solve how to “get rid of” negative experiences.
- Our brains just don’t know that this can’t be fixed (i.e., chronic or internal).

Assumptions in ACT

- You’re not broken
- There’s nothing wrong with you
- The strategy isn’t working
- Caveman mind

Problem solving mind: anxiety

- Short term solutions to rid anxiety
- Tricks of the mind
- Solutions are counterintuitive (exposure)
Problem solving mind: WEIGHT

• Once you get to a “normal” weight you won’t be distressed
• Solution is counter intuitive, stop focusing on weight

How does our caveman brain take us off our route?
1. Set yourself a self-care goal
2. Notice...

My caveman brain
Common themes:
OBSTACLES: difficulties that lie in our path
  Example: “It’s too cold out.” “I’m too tired to exercise.”
JUDGMENTS: not up to the task
  Example: “I’ll never be able to do this.”
COMPARISONS: others seem to do it better, have more talent, or have it easier
  Example: “Joan always goes to the gym no matter what. It’s easy for her.”
PREDICTIONS: failure, rejection, or other unpleasant outcomes
  Example: “I won’t stick to it. Why bother.”

Rumble strips
• Are you willing to experience discomfort in the service of something that matters to you?
  • Willingness switch
• Whatever it’s telling you, it does so with your best interest at heart.
• It’s just it is working with an old playbook.
• With genuine gratitude, thank your caveman mind.

Manage your caveman brain

• I cannot lift up my arm.
• I’m too tired to lift up my arm.
• I’m too tired to go to the gym.

Source: Stoddard et al., 2014

Manage your caveman brain

• Skills in defusion, mindfulness, present moment awareness, self-compassion, flexible perspective taking

Source: Stoddard et al., 2014

Compassion

• “...a deep awareness of the suffering of oneself and of other living things, coupled with the wish and effort to relieve and prevent it.”
• - Paul Gilbert

Compassion Begins With A Reality Check

• So much in life that causes our suffering was not of our choosing and was not our fault.
• Evolution
• Genetic lottery
• Social and cultural lottery
• Caveman mind

Source: Tirch, Silbertein, and Kolts, 2018

Compassionate Reality Check

• Can we be kind that this is a struggle
• That it’s hard to not get caught up in self-critical thoughts
• that it’s hard not to give in to depressed feelings
• that’s it’s hard to manage weight
• The fact that this is hard, not your fault (is your responsibility)

Source: Tirch, Silbertein, and Kolts, 2018
Honour the statue

“Every block of stone has a statue inside it and it is the task of the sculptor to discover it. I saw the angel in the marble and carved until I set him free.”
- Michelangelo

What do we control?

Behavioural Goals

• Behaviour is:
• Observable
• Measureable
• Under direct control of the patient.
• Meaningful to the patient.
• Learned helplessness

Committed Action

Goal Setting:
• 90% goal.
• Break down a large goal into smaller pieces.
• Shaping
• Success breeds success.
• "Do instead" goal
• Pink elephants
• Add instead of take away

Values

• What is your heart’s deepest desire for how you want to behave as a human being?
• What kind of person do you want to be?
• Who or what really matters?
• (activating frontal lobe)
• Guide ongoing behavior; Different from goals
Values

• Why do you want to be healthier?
• What will you do with your extra health, energy, years of life on earth?
• What’s going to make it worth it for you to do this hard work.
• Link to an existing value; not making “health” more important

Source: Lee-Baggley (2019)

Linking values and health behaviours

Value:
Engaged parent

Know his friends
Help with homework
Attend sports
Go to the gym

Source: Lee-Baggley (2019)

Values COVID-19

• Same storm, different boat: Values become our compass
• What do I want to stand for during this crisis?
• What kind of person do I want to be?
• How do I want to look after my physical and emotional health at this time?
• How would I want to be remembered after this crisis is over?
• How would the best version of myself show up?
• What would I be doing if I was being exactly who I want to be?

COVID-19

Parallel process

BCI Curriculum: Role of the HCP in chronic disease management

Source: Vallis, Lee-Baggley et al., 2018
Knowledge is not enough: Readiness Program

• Empirically based behavior change interventions for the workplace adapted for healthcare
• Values: what’s in it for the healthcare provider to change; how will it help you be the healthcare provider you want to be
• Distress tolerance: tolerating the stress of change; coping strategy to be the expert; willing to be uncomfortable

Source: Lee-Baggley et al., 2019

Charge your battery: Self-Care Skills for Healthcare Providers

How will self-care help you be the person you want to be; ACT skills to engage in self-care more consistently
• Session 1: Building and sticking to a daytime routine that includes self-care
• Session 2: Emotion-focused coping for difficult emotions
• Session 3: Present moment awareness
• Session 4: Self-compassion to respond kindly to ourselves and others
• Session 5: Building and sticking to an evening routine to promote sleep
• Session 6: Emotion-focused coping for change and loss
• Session 7: Mindfulness
• Session 8: Compassionate responding to self and others

Source: Lee-Baggley et al., 2020

Charge your frontal lobe

Recharging activities: Feel more energetic at the end than when you started.
Examples:
• Sleep
• Eating healthy food
• Hydrating
• Exercise
• Social connection

*Individual differences*

Source: Adapted from Flaxman & Macintosh, 2019

Additional Resources

• Atlantic Canada Chapter of ACBS
• Peer support ACT group
• acbsatlanticcanada@gmail.com
• https://contextualscience.org/acbs
• https://contextualscience.org/atlantic_canada

Additional Resources

• World Con (July 16-19, 2020) Virtual
• https://contextualscience.org/wc2020online
• https://contextualscience.org/atlantic_canada
Additional Resources

- The Weight Escape
- Healthy Habits Suck
- The Diet Trap

Additional Resources

- ACT Made Simple
- The Big Book of ACT Metaphors
- Get Out of Your Mind and Into Your Life

Thank you

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