## Resilience and Mental Health: a Key to Success?

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#### Conflict of Interest Disclosure

Past 24 months: No disclosures



### Learning Objectives

- 1. Explore the concept of resiliency and why it is important for coping with chronic health conditions
- 2. Discuss tools to assess resiliency in IBD
- 3. Examine interventions to improve resiliency in IBD



## Resilience: what is it?

- Ability to maintain mental health despite exposure to psychological, physical adversity
- Dynamic process of successfully adapting to difficult, challenging life circumstance







- Skills, behaviors?
- Process?
- Modifiable
  - · resources and skills can be enhanced, developed



## Resilience in health: where does this fit?

#### Change of emphasis

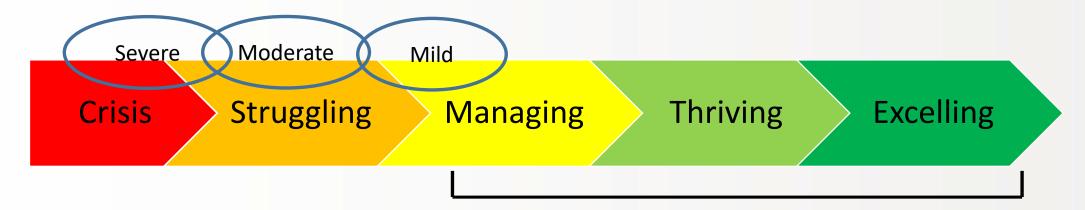
- from illness to wellness
- further upstream preclinical, early clinical
- aims to close gap through prevention and early intervention for stress- related disorders (e.g., depression, anxiety, PTSD)



- Resilience research considers protective mechanisms against stress-related disorders and disease impact
- Resiliency interventions aim to prevent or mitigate mental disorders by enhancing resilience capacity



#### **Mental Health Continuum**



- not either 'ill' or 'well'
- Positive psychology, inclusive of resilience, shifts focus from understanding and treating mental illness to understanding and facilitating well being and flourishing

# Resilience and Positive Psychology

- Medicine and Clinical Psychology
  - Predominant focus -identifying and treating pathology/illness/disease
- Positive psychology
  - Scientific study of human flourishing
  - Aims to improve well being, promote mental health, prevent psychopathologies
  - Seminal article, Seligman & Csikszentmihalyi 2000
  - Resilience training programs schools, US military







## Key Aspects of Resilience

### Psychological flexibility

- foundational to psychological health
- able to adjust behaviors, mental approach and attitude

Positive emotions
Meaning and Purpose
Coping Skills



## Resilience – Mechanisms

Biologic, neuroendocrine and neural changes are associated with resilience

- Resilience offsets catecholamine, cortisol responses to stress in trauma
- Resilience associated with ability to keep HPA axis and norepinephrine levels within optimal range during stress

Neural resilience circuitry overlaps with emotion and stress regulation circuitry Resilience linked to differences in coping, self care, adherence behaviors which can positively impact disease outcomes



## Resilience in Chronic Disease

#### Higher resilience

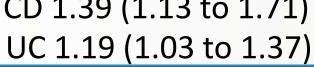
- For youth, moderated the relationship between stress and depressive symptoms, serving as a buffer
- In chronic diseases, associated with lower anxiety, depression, better illness outcomes, better QoL (e.g., RA, cardiovascular disease, diabetes, hepatitis, ankylosing spondylitis)

Low stress resilience associated with early stroke, heart failure Cardiovascular disease - likelihood of death 67% higher w/i 4 years of MI in emerging depression trajectory vs resilient trajectory



#### Low stress resilience levels in adolescence associated with higher risk of IBD as adult

- n~240,000 Swedish men; assessment through mandatory military conscription
- Stress resilience psychological interview, questionnaire
- ICD codes IBD, Sweden National Patient Register
- HR (95% CIs) CD 1.39 (1.13 to 1.71)



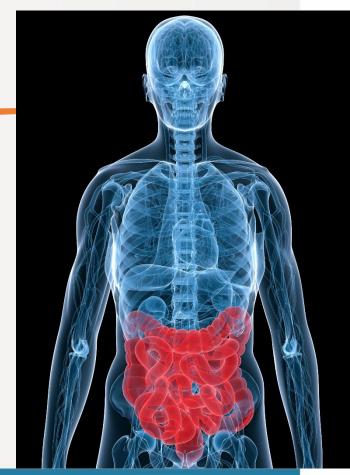




photo: CCL



#### Canadian survey:

 72% adults with IBD have had to adapt lifestyle to account for their disease – resilience?

#### **Pediatrics:**

- Systematic review 17 studies but no validated measures
- (preliminary) associated with better body image, better social functioning





- High resilience associated with significantly lower levels of anxiety and depression; independently associated with lower anxiety
- Resilience has mediator effects;
   childhood trauma lower resilience higher depression
   higher suicide risk for adults with IBD





Higher resilience independently associated with lower disease activity,

n = 229

fewer surgeries, higher QOL

**TABLE 2.** High vs Low Resilience and IBD Disease Activity Measured Using Mayo or HBI

	Low	High	
	Resilience*	Resilience	P
UC (Mayo score), mean (SD)	4.31 (2.74)	1.54 (1.29)	<i>P</i> < 0.001
CD (HBI), mean (SD)	3.95 (3.86)	2.31 (3.26)	P = 0.035

**TABLE 7.** Results of Bivariate Generalized Regression Analyses of Association of Resilience With IBD-Related Surgeries

	Number of IBD-Related Surgeries		
	Odds Ratio	95% CI	P
High resilience (CD)	0.127	0.036-0.450	0.001
High resilience (UC)	0.960	0.915-1.006	0.086



<sup>\*</sup>Low resilience: CDRISC score <35; high resilience: CDRISC score ≥35.

# Measuring Resilience

### Complex

- Studies variously measure resilience as characteristics, skills or outcomes
- Ideally evaluated longitudinally in context of a stressor
   No surrogate or biomarkers
   No gold standard
- 3 measures with robust psychometrics



## Measuring Resilience



Measure	items	Concept	Developed with	
Brief Resilience Scale (BRS)	6	Ability to recover from stress	Medical patients	
Resilience Scale for Adults (RSA)	33	Domains of resilience	Psychiatric outpatients	
Connor Davidson Resilience Scale (CD-RISC)	25/10	Stress coping resources	Psychiatric outpatients	Most widely used; >70 translations

NEW/untested: Resilience Scale for Inflammatory Bowel Disease (RS-IBD); developed in China; not translated or externally validated



# Measuring Resilience

#### **NEW: GRITT Resilience Scoring Tool**

- Gaining Resilience Through Transition (GRITT)
- digital; clinician administered; requires training
- Used in multidisciplinary IBD team part of larger 'GRITT method' which assesses, customizes plan, intervenes
- generates personalized care plan for low resilient patients (GRITT score < 70)</li>



- Identifies resilience-related disease interfering thoughts, attitudes, behaviors across 5 areas
  - medical, nutritional, psychological, disease self management skills, health system access challenges
  - Scores 0 to 100, with higher scores = less complexity/greater resilience
  - Correlates with patient's self report of resilience, psychological distress



# Strengthening Resilience



Crisis

Struggling

Managing

Thriving

Excelling

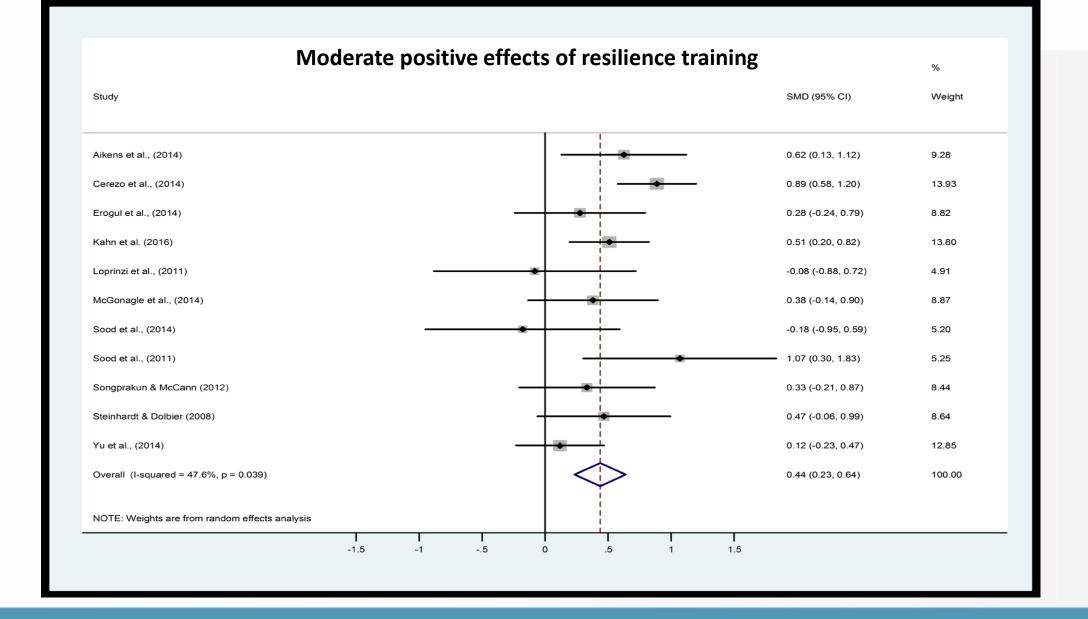
Resilience training: learn coping skills before encounter stress, or during/after Outcomes: better mental health, QoL; lower disease impact

Common elements:

- Multi-session
- Mindfulness
- Self compassion
- Emotion regulation

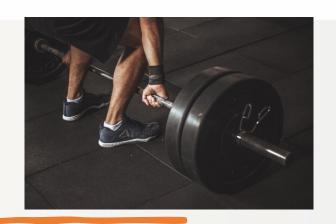
- Psychoeducation
  - (stress and health)
- CBT & ACT strategies: goal setting; relaxation training, cognitive defusion







# Strengthening Resilience



Review - Cancer patients: resilience enhancing interventions

- 22 RCTs; > 2900 patients
- significant improvement in resilience; decreased distress
- Small to med effect sizes; large effect sizes in acute cancer
- Effects durable (up to a year)



# Strengthening Resilience: IBD - Mind over Gut



Self management, online Australia – Dr Simon Knowles

- -no cost 5 week psychological resilience program
- combines stress management, CBT and ACT strategies
- -eligibility: 18+; diagnosed IBD, mild to moderate distress; not under care of psychiatrist, psychologist

www.ibd.mindovergut.com



# Strengthening Resilience: IBD - GRITT

Gaining Resilience through Transition (GRITT) method

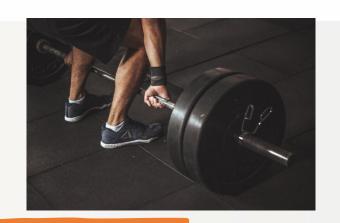


Resilience-based IBD care program
Integrated IBD clinic; multidisciplinary team

- Patients selected based on low resilience (not psychological comorbidity)
- program customizes targets to improve resilience around managing IBD
- significant mental illness concerns referred externally to mental health services Care is personalized - 5 therapeutic targets:
- disease acceptance / optimism, hope, future orientation / self-confidence / social support / self-regulatory skills.



# Strengthening Resilience: IBD - GRITT



Integrated care team provides, as indicated:

Behavioral care (psychologist)

brain gut behavior therapies incl CBT, mindfulness, hypnotherapy approaches targeting gut and disease; different than 'traditional' CBT

Nutritional care (dietitian)

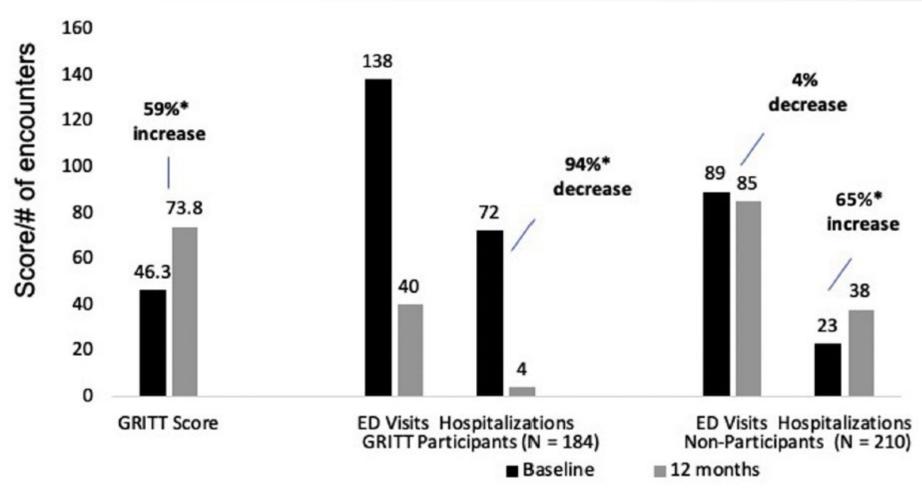
address malnutrition; improve diversity of diet, promote bowel regularity

Medical counselling (pharmacist/nurse)

guidance on medication, complementary medicine products, medications,



# Strengthening Resilience in IBD



n=184 GRITT
Median 8 sessions
n=210 controls

Keefer et al 2022



[F (1, 391) = 421.6, p = 0.0001]; \*P < .01

#### AGA CLINICAL PRACTICE UPDATE: EXPERT REVIEW

# Best Practice Update: Incorporating Psychogastroenterology Into Management of Digestive Disorders



Laurie Keefer, 1 Olafur S. Palsson, 2 and John E. Pandolfino 3

Brain- gut psychotherapies can improve coping and resilience for IBD patients

Cognitive behavioral therapy - specifically IBD-related, skills based build coping, resilience to distress

Medical Hypnotherapy – gut directed

Less effective if comorbid moderate to severe mental health concerns



# Challenges and Future directions

- Validate standard resilience measures in IBD samples
- Need additional RCTs in IBD resilience intervention studies
- Ensure prospective, longitudinal studies to show change over time, and durability
- Understand individual differences and role of comorbid psychopathology



# Take Home Points: Resilience as a new therapeutic target?

Resilience is a promising target
value in other chronic diseases
assess and strengthen before development of mental health issues,
or concurrently if mild/moderate
Compelling data in IBD sample for impact on HCU outcomes; to be replicated
Supports need for integrated care approach in IBD
Need to determine durability, how scale up

