Treating Adults who have Faced Adversity in Childhood: A New Path in Primary Care

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- Evelyn Hickey, embrACE Advisory Group Member, Calgary, AB

APCC
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Presenter Disclosure

- **Presenter:** Penny Borghesan
  Sherry Harris
  Evelyn Hickey

- **Relationships that may introduce potential bias and/or conflict of interest:**
  - No relationships to declare.
Learning Objectives

At the conclusion of this session, the participant will be able to:

• identify the impact of early childhood trauma on adult physical and mental health outcomes
• describe specific factors that moderate/mediate the relationship between early life trauma and adult health outcomes
• articulate a treatment approach for adults with childhood trauma that follows population-based care and stepped care principles in primary care settings


Acknowledgements

- Working in partnership with colleagues from Shared Mental Health Care (AHS), the University of Calgary, and Primary Care Networks within the Calgary area

- Have a long standing patient advisory group
- Sponsored by the Palix Foundation
Influence of Kaiser Permanente Study (Felitti, Anda & Colleagues, 1998)

Research Article

Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults

The Adverse Childhood Experiences (ACE) Study

Vincent J. Felitti, MD, FACP, Robert F. Anda, MD, MS, Dale Nordenberg, MD, David F. Williamson, MS, PhD, Alison M. Spitz, MS, MPH, Valerie Edwards, BA, Mary P. Koss, PhD, James S. Marks, MD, MPH
The Adverse Childhood Experiences (ACE) Study

The largest study of its kind ever done to examine the health and social effects of adverse childhood experiences over the lifespan (17,000 participants)
What are ACEs?

- **Abuse**
  - Emotional: recurrent threats, humiliation
  - Physical: beating, not spanking
  - Contact sexual abuse

- **Neglect**
  - Physical
  - Emotional

- **Household Dysfunction**
  - Mother treated violently
  - Household member was drug or alcohol abuser
  - Household member was imprisoned
  - Household member with chronic mental illness
  - Not raised by both biological parents
Main Conclusions of the ACE Study

1) ACEs are Common
- Only 1 in 3 had an ACE score of 0
- 1 in 4 exposed to 2 categories of ACEs
- 1 in 16 was exposed to 4 categories
- 22% were sexually abused as children

2) ACEs are significantly related to health risk behaviors, chronic diseases, and mental health problems in adulthood
The Long-term Cost of ACEs

- **Chronic Disease**
  - 67% of all health care costs
  - $219 billion in 2015 (11% of GDP)
  - Expenditure growth rate > Canadian economy

- **Depression**
  - $51 billion annually in Canada
  - 2nd leading cause of global disease burden by 2020

- **Addictions**
  - $40 billion annually (tobacco + alcohol + illegal drugs)
  - Doesn’t include Rx drugs or behavioural addictions
We need to do something about chronic disease, depression, addictions, and their associated costs.

If ACEs are a significant predictor of these health problems, we need to do something about ACEs.
Possible approaches

• Simple screening isn’t enough!

• **Primary prevention** (stop ACEs from happening)
  • Home visits for families with newborns
  • Parenting training programs
  • Social justice; reducing incarceration rates

• **Secondary prevention** (early help for people with ACEs)
  • Screen for people “at risk”
  • Offer treatment to increase resilience and off-set risk

• **Tertiary prevention** (treat the final condition that emerges)
  • Chronic disease support groups
  • Mental illness and substance abuse treatment
The embrACE Research Program

• Project Purpose and Goals: To identify and treat adults with high ACE childhoods in primary care settings

• Four Phase Implementation
  • Phase 1: Develop and validate an ACEs measure
  • Phase 2: Large scale replication of the first ACEs study
    • The hunt for moderators and modifiers
  • Phase 3: Develop and test an intervention for people with high ACE scores in primary care
  • Phase 4: Test the intervention in an RCT
ACE Questionnaire
1. Did a parent or other adult in the household often or very often...Swear at you, insult you, put you down, or humiliate you? Or act in a way that made you afraid that you may be physically hurt? Yes? No?
2. Did a parent or other adult in the household often or very often...Push, grab, slap or throw something at you? Or Ever hit you so hard that you had marks or you were injured? Yes? No?
3. Did an adult or person at least 5 years older than you ever... Touch or fondle you or have you touch their body in a sexual way? Or attempt to actually have oral, anal or vaginal intercourse with you? Yes? No?
4. Did you often or very often feel that…No one in your family loved you or thought you were important or special? or Your family didn’t look out for each other, feel close to each other, or support each other? Yes? No?
5. Did you often or very often feel that…You didn’t have enough to eat, had to wear dirty clothes, and had no one to protect you? Or Your parents were too drunk or too high to take care of you or take you to the doctor if you needed? Yes? No?
• Were your parents ever separated or divorced? Yes? No?
7. Was your mother or step-mother: Often or very often pushed, grabbed, slapped, or had something thrown at her? Or Sometimes, often or very often kicked, bitten, hit with a fist, or hit with something hard? Or Ever repeatedly hit over at least a few minutes or threatened with a gun or a knife? Yes? No?
8. Did you live with anyone who was a problem drinker, or alcoholic, or who used street drugs? Yes? No?
9. Was a household member depressed or mentally ill, or did a household member attempt suicide? Yes? No?
10. Did a household member go to prison? Yes? No?
• Now add up your answers. Count 1 for every ‘Yes’ response.
• This is your ACE score.
• We will collect and tally responses to share distribution of ACE scores amongst our group.
To show this poll

1. Install the app from [pollev.com/app](http://pollev.com/app)
2. Start the presentation

Still not working? Get help at [pollev.com/app/help](http://pollev.com/app/help)

or

Open poll in your web browser
Phase 1: embrACE Program

Phase 1 Purposes: Validate an ACEs measure suitable for use in primary care
Phase 2: embrACE Program

Purpose: Large scale replication of the ACEs study in Primary Care in Calgary, Alberta

Process:
• 4000 subjects to complete the ACEs measure
• Subjects to complete “life experience” questionnaires
• Look at health care usage in the past two years (acute care and primary care), as well as in the year following the completion of the questionnaires
• Look at “resilience” “emotional regulation” and “interpersonal problems” as moderating and mediating variables
Phase 2 Results

ACE Scores for Sample (%) N = 4,007

- Females
- Males

Values for phases:

- Phase 1: 28.7
- Phase 2: 22.5
- Phase 3: 16.7
- Phase 4: 10.4
- Phase 5: 6.9
- Phase 6: 5.4
- Phase 7: 4.0
- Phase 8: 2.2
- Phase 9: 2.3
- Phase 10: 1.2
- Phase 11: 0.6
- Phase 12: 0.3
The Dose-Response Relationship

- The dose-response relationship leads to inferences about cause & effect.

- The “response”—in this case the occurrence of the health condition—is influenced directly by the size of the “dose”—in this case, the number of ACE categories.
ACEs and Gastro-Intestinal Problems

![Bar chart showing the correlation between ACEs and gastrointestinal problems. The chart compares Irritable Bowel Syndrome (IBS) and Stomach or Intestinal Ulcers across different ACE levels (0, 1, 2, 3, 4+). The chart indicates a significant increase in gastrointestinal problems with higher ACE levels, especially for Stomach or Intestinal Ulcers.](input)
ACEs and Frequent Headaches & Fatigue

![Bar Chart]

- **Headaches**
- **Fatigue**

- **0**
- **1**
- **2**
- **3**
- **4+**

*** indicates statistical significance.
ACEs and Clinical Depression & Suicidal Ideation

![Bar chart showing the relationship between ACEs and clinical depression and suicidal ideation.](chart.png)
An Exploration of Mediators and Moderators

- We know that ACEs predict depression in adulthood.
- Depression is also associated with a range of other poor health outcomes in adulthood.
- Mechanisms responsible for the association between ACEs and depression will likely apply to ACEs and other poor health outcomes in adulthood.
ACEs ➔ MODERATOR Variable Resilience ➔ Depression

Depression ➔ MEDIATOR Variables

MEDIATOR Variables

Emotional Regulation

Interpersonal Problems
Results

• Our research helps to establish emotion dysregulation and interpersonal problems as mechanisms by which ACEs may be associated with anxiety and depression, and resilience as a buffer of these associations.

• All of these variables have been shown to be **modifiable** treatment targets.

• Treatment initiatives for ACE-related depression should address emotion dysregulation, interpersonal problems, and resilience as treatment targets.

• We are conducting analyses with other physical health conditions as criteria.
How did I get involved in embrAC E?

Why do I stay involved with embrAC E?
Sylvia’s Story

- **Medical Issues:**
  MI, Diabetes, High BP, High Lipids,

- **Mental Health Issues:**
  Severe Anxiety and Depression

- **Social Issues:**
  Unable to work, Financial Stresses, Housing and Relationship Stresses
Sylvia’s Management

- Developed Rapport/Trust
- Shared Mental Health Care Program
- Introduced Idea of ACE’s
- ACE Screening and ACE SCORE
- Participation In Treatment Research Group

Sylvia’s most powerful take home message was that “feelings are not facts!”

ACE’s are not who we are, they are what happened to us!
What am I learning?

- ACE’S ARE IMPORTANT!
- Need to ask/screen to know
- Need to educate patients, physicians, and other health care providers about ACEs
- Don’t fear the unknown – you are not alone in management!
Strategy #1: Be Balanced

Be clear, concise, and balanced:

There are two sides to the story:

A. Your high ACE score explains some of the issues in your life (both negative AND positive)

B. There are things you can do to improve your life
Strategy #2: Explain the Stress Response Process

People with high ACE scores are more reactive to triggers because their life experiences have trained their brain and bodies to be on high alert.

People with high ACE scores are more likely to:

- respond quickly to stress as if it is a major risk for danger
- take longer to return to their baseline cortisol functioning

INFORMATION is POWER
Strategies for Setting Patients Up for Success

Strategy #3: Reflective Listening

a. Listen to their story/experience
b. Reflect back to them that they have been heard
c. Validate without judgement
d. Thank them for sharing
Strategies for Setting Patients Up for Success

Strategy #4: Connect them to:

a. Trusting and supportive relationships (family, friends)
b. Treatment (therapists, counselors, education)
c. Supportive Treatments (support groups, education groups)
d. SELF
   i. Awareness: recognizing their triggers and instincts
   ii. Mindfulness: awareness of their physical responses in the moment
   iii. Self Talk: cultivating positive attitudes; recognizing progress
   Self Care: routines for exercise, social interactions, etc
“You have a rare condition called ‘good health’. Frankly, I’m not sure how to treat it.”
Overview of the embrACE Treatment
An ACE-informed Adult Treatment Program

1. Key guiding principles in the development process
2. Specific steps in development the treatment
3. Elements of the program
4. Preliminary results
Key Principles of the ACEs Treatment

✓ Evidence-informed treatment
  ❖ Literature review of treatments for trauma revealed CBT, mindfulness, and expressive writing as most effective (Korotana, Dobson, Pusch, Josephson, 2016, Clinical Psychology Review)

✓ Trauma-informed

✓ Must be close to the point of care: Primary Care

✓ Multidisciplinary effort
  ❖ “Layers of players” provides for a more integrated model of treatment, support and care
Treatment Development

• Experienced mental health clinicians in primary care settings
  • Training and knowledge of developmental trauma factors
  • Experience in clinical work within primary care

• Met over the course of about a year to develop the treatment model
• Reviewed literature, clinical models, relevant factors
• Consulted experts: Anda, Briere, Cloitre, Strosahl, Robinson

• Consensus and feedback!
  • ACEs-Alberta Research Group
  • Patient Advisory Group
  • Facilitator and Participant focus groups
## Treatment Decisions

<table>
<thead>
<tr>
<th>Issue</th>
<th>Our decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toolbox and skill development versus “digging into the past”?</td>
<td>A recognition of the past, but a focus on current functioning, and tools</td>
</tr>
<tr>
<td>Individual versus group?</td>
<td>Group- for social support and possible cost efficiency</td>
</tr>
<tr>
<td>How much treatment is enough?</td>
<td>Six meetings- not too long, but enough for meaningful content</td>
</tr>
<tr>
<td>What are the treatment targets?</td>
<td>Modifiable risk factors: resilience, coping strategies, interpersonal relationships</td>
</tr>
</tbody>
</table>
The embrACE Program

- Initial ACE screening
- Meeting with GP and Clinician
- Inclusion/ exclusion criteria
- Invited to join the skills-based group
- Follow up at 3 & 6 months to assess health outcomes
Lifetime Effects

A Self-Care Plan
Cognitive, emotional and social skills
Mindfulness; taking care of the body

Adverse Childhood Experiences
Disrupted Neurodevelopment
Social, Emotional, and Cognitive Impairment
Adoption of Health-risk Behaviors
Disease, Disability, and Social Problems
Early Death
Death
Conception
Format of Each Meeting

1. Today’s topic
2. Review of homework
3. Relaxation exercise
4. Skill building, discussion, practice
5. Check out and homework
Meeting 1: Content

- Why are we here?
- Presentation: ACEs and You
- Relaxation exercise
- Bull’s eye exercise
- Introduction of self-care plan
- Check-out
Taking Care of My Body
- Relaxation exercise
- Check-in
- Key areas:
  - Sleep
  - Nutrition
  - Exercise
  - Relaxation
  - Self-nurturing rituals
- Check-out
Meeting 3: Content

Taking Care of my Thoughts

- Relaxation exercise
- Check-in
- Thinking traps:
  - Identify thinking traps
  - Create alternate thoughts/beliefs
  - Additional strategies for changing thinking traps
- Check-out
Meeting 4: Content

Taking Care of My Feelings
- Relaxation exercise
- Check-in
- Aces and emotions
- Skills for managing unpleasant emotions
- Check-out
Meeting 5: Content

Taking Care of My Relationships

- Relaxation exercise
- Check-in
- ACEs and relationships
- Boundaries
- Communication skills
- Check-out
Meeting 6: Content

Taking Care of My Past/ Living a Valued Life
- Relaxation exercise
- Check-in
- Bull’s eye exercise
- Self-compassion exercise: letter
- Review of favorite self-care skills
- Check-out: What’s next?
Development of a Self-Care Plan

- List of all the skills taught in the 6 sessions
- Participants indicate their favourite skills

- Participants make a plan to use skills in the future
- Participants share their plan with GP and/or clinician after the end of the group to decide next steps
Self-Care Plan

- Select the skills that have worked best and describe how you will use the skills in the future.

<table>
<thead>
<tr>
<th>My Favourite Self-Care Skills</th>
<th>My Resolution</th>
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<tbody>
<tr>
<td>Grounding Exercise</td>
<td></td>
</tr>
<tr>
<td>Bulls Eye Exercise</td>
<td></td>
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<tr>
<td>Increasing Movement</td>
<td></td>
</tr>
<tr>
<td>Sleep Hygiene</td>
<td></td>
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<tr>
<td>SMART goals</td>
<td></td>
</tr>
<tr>
<td>Identifying Thinking Traps</td>
<td></td>
</tr>
<tr>
<td>Riding the Wave</td>
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</table>
Feedback

- Participants would recommend the group to a friend
- Minor modifications suggested for some content, exercises, and format of the manual
- Increase session time and/or add more weeks to the program
- Participants felt that they were not alone; helpful to hear others’ experiences
Preliminary Results From embrACE Trial

- Goal was to develop and provide “Proof of Concept” data for an ACEs-informed treatment for patients in primary care
- Inclusion criteria:
  - An ACE score of 3 or more
  - > 17 years of age
  - Clinician assessed patient as being safe and stable enough for involvement in group
Demographics (n = 107)

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<th>Variable</th>
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<td>Birthplace:</td>
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<td>- Alberta</td>
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<td>- Other Canada</td>
<td>37</td>
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<tr>
<td>- Outside Canada</td>
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<tr>
<td>Gender:</td>
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<td>- Male</td>
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<td>- Female</td>
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<td>Ethnicity:</td>
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<td>- Caucasian</td>
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<td>- Other</td>
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<td>Marital Status:</td>
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<td>- Never married</td>
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<tr>
<td>- Married or cohabiting</td>
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<td>- Divorced or separated</td>
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<td>- Widowed</td>
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Demographics ($n = 107$)

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<td><strong>Education:</strong></td>
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<td>- High school or less</td>
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<td>- Some college or university</td>
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<td>- College or university graduation</td>
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<td>- 20,000- 39,999</td>
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<td>- 40,000- 79,999</td>
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<td>- Retired</td>
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## Pre- and Post-Treatment Scores

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<th>Pre-test</th>
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<th>t-score</th>
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<td>Mean</td>
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<td>GAD-7</td>
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*Note.* Repeated measures ANOVAs were performed on pre- and post-treatment questionnaire scores.
Evelyn Hickey
embrACE Advisory Committee Member
Some things get carried with you.

Borrowed from: http://agirlnamedpj.com
People are more than meets the eye!

borrowed from: https://www.scienceabc.com/nature
Like life’s journey: always twisted, sometimes treacherous, incredibly beautiful.
Soul Spring

http://www.richardmichellepentelbury.com/soul-spring.html

My friend Richard Michelle Pentelbury’s painting
Next Steps

• **Randomized Clinical Trial** to begin in Spring, 2018

• 2-arm design:
  1. The embrACE Program in group
  2. Treatment as Usual (TAU)/Deferred treatment
• Thank you

• Comments and Questions....

Sherry.Harris@AHS.ca
Session Evaluation

Thank you!