Developmental trauma
ACE study

• >70,000 people given the ACE questionnaire
• 12.5% had 4 or more “ACEs”
• The higher the score, the more adult medical and mental health problems
• These problems are independent of lifestyle, they are the result of biological brain changes caused by trauma
• The general medical community and pain clinics rarely screen for “ACEs”
Adverse Childhood Experience (ACE) Questionnaire
Finding your ACE Score as of 10/24/06

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household often ...
   Swear at you, insult you, put you down, or humiliate you?
   or
   Act in a way that made you afraid that you might be physically hurt?
   Yes No If yes enter 1 ________

2. Did a parent or other adult in the household often ...
   Push, grab, slap, or throw something at you?
   or
   Ever hit you so hard that you had marks or were injured?
   Yes No If yes enter 1 ________

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
   Try to or actually have oral, anal, or vaginal sex with you?
   Yes No If yes enter 1 ________

4. Did you 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 If yes enter 1 ________

5. Did you 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 high to take care of you or take you to the doctor if you needed it?
   Yes No If yes enter 1 ________

6. Were your parents ever separated or divorced?
   Yes No If yes enter 1 ________

7. Was your mother or stepmother:
   Often pushed, grabbed, slapped, or had something thrown at her?
   or
   Sometimes or 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 knife?
   Yes No If yes enter 1 ________

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
   Yes No If yes enter 1 ________

9. Was a household member depressed or mentally ill or did a household member attempt suicide?
   Yes No If yes enter 1 ________

10. Did a household member go to prison?
    Yes No If yes enter 1 ________

Now add up your “Yes” answers: ________ This is your ACE Score
How is the trauma epidemic relevant to solving the opioid crisis

Trauma changes brain function

These changes lead to symptoms that respond to opioid

This is why many “pain patients” end up on high risk opioid + benzo medication regimens
What evidence is there for this?

- IPCA experience (interdisciplinary clinic with psychology evaluation for complex patients)
- ECHO Pain experience (Primary Care education telemed program)
- Addiction medicine experience

We realized that many chronic pain patients on chronic opioid and prescription opioid overdose victims have these characteristics:

1. Developmental trauma is there
2. No clear pathology to explain the pain
3. Fatigue, anxiety, depression, pain, insomnia, high level of disability *always* there
4. Often, no addiction disorder
We and others also noticed that

Many trauma symptoms are responsive to opioid in the short run

– Fatigue, mood (especially anxiety), insomnia and pain for psychological reasons*.

– Ex: We asked “how does the oxycodone help you”, the most common answers were: “less tired, more relaxed”

*Davis B, Vanderah T. A New Paradigm for Pain. J Fam Practice 2016 September;65(9):598-605
http://www.mdedge.com/jfponline/article/111257/pain/new-paradigm-pain
Integrative Pain Center of Arizona: A healthcare system where the patient is at the center.

Symptoms:
- Trauma
- Fatigue
- Addiction
- Depression
- Anxiety
- Insomnia
- Obesity
- Short lifespan
- Chemical coping

Nervous system reorganization
Case in point

• PJ: Sent to us because the new PCP does not want to prescribe opioid. 2 lumbar surgeries for low back pain 13 years ago with a current chief complaint of back pain radiating down the right leg and foot drop on the right. He says back surgeries and PT did not help claims increasing pain over the years since the last surgery 2010 radiating down the right leg. He documents maximum possible disability at 10/10 on all domains on the brief pain inventory (a state of function consistent with an intubated /ventilated /paralyzed patient in the ICU) and has a markedly positive screen for psychosocial factors that we suspect might drive his disability and use of opioid including severe childhood trauma (ACE 6+) and severe anxiety (GAD 7 18/21 today). He demonstrates exaggerated pain behaviors today, limping significantly on a cane, grimacing and groaning. He is nevertheless engaging and alert and oriented with clear and fluent speech and intact memory, he does not appear impaired by his pain medications. These have been weaned somewhat and he is not happy with that. Addiction evaluation – no addiction disorder.

• We suspect that he has fallen into the trap of being prescribed opioid over the years for problems that are more psychosocially driven then physically. I do not doubt that he has sciatica, that is not what we are saying.
Adverse Childhood Experience Questionnaire

This may not seem relevant, but it helps us assess how a person's nervous system functions as far as reporting pain to the brain.

While you were growing up, during your first 18 years of life:
1. Did a parent or other adult in the household often...
   - Swear at you, insult you, put you down, or humiliate you?
   - Act in a way that made you afraid that you might be physically hurt?
   - Yes  No

2. Did a parent or other adult in the household often...
   - Push, grab, slap, or throw something at you?
   - Ever hit you so hard that you had marks or were injured?
   - Yes  No

3. Did an adult or person at least five years older than you ever...
   - Touch or fondle you or have you touch their body in a sexual way?
   - Try to or actually have oral, anal, or vaginal sex with you?
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   - Yes  No

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9. Was a household member depressed or mentally ill or did a household member attempt suicide?

10. Did a household member go to prison?

Your ACE Score: add up your “Yes” answers, 1 point for each answer: ___ / 10

Note: All questions are optional.
Integrative Pain Center of Arizona  A healthcare system where the patient is at the center

- Alprazolam 1 mg 1 tid (09/13/2017 for 30 days)
- Baclofen 10 mg TID (07/18/2017 for 0 days)
- Lovastatin 10 mg QPM (07/18/2017 for 0 days)
- Omeprazole 40 mg QD (07/18/2017 for 0 days)
- Oxycodone 30 mg QID (07/18/2017 for 0 days)
- Sertraline 100 mg 1 and 1/2 tab Qday prescribed by Dr. Ross (07/18/2017 for 0 days)
- Soma 350 mg 1 tid for spasm (09/13/2017 for 0 days)
- Trazodone 100 mg QHS (07/18/2017 for 0 days)
The Chemical Coping epidemic

Coping with psychological distress with opioids, and often other medications/substances known to be effective for this such as marijuana or tobacco, in a patient who has little difficulty stopping opioid for good when the psychological distress is addressed.
Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors....
Initial development of a survey tool to detect issues of chemical coping in chronic pain patients

Kenneth L. Kirsh (a1), Carolyn Jass (a2), Daniel S. Bennett (a2), James E. Hagen (a2) ...

Significance of results: The middle ground between compliant medication use and addiction, which we call chemical coping, is poorly understood and woefully underresearched. Despite this gap in our knowledge base, it is an often observed phenomenon. Creating a tool to identify these characteristics can lead to better treatment outcomes and earlier interventions to help improve compliance with medication regimens.

Pain and Palliative Care Sept 2007 5(3): pp. 219-226
The making of a chronic pain patient (out of a person who chemically copes with the effects of trauma)

Acute Pain in the context of anxiety, trauma, depression, ???

I feel better, calmer, less anxious, less depressed, so how do I get more? They give me oxycodone if I talk about pain....

Pt constantly talks about the pain they have and is prescribed pain meds > 1 year
Acute Pain in the context of anxiety, trauma, depression, ???

Percocet script

I feel better, calmer, less anxious, how do I get more?

Pt constantly talks about pain and is prescribed pain meds > 1 year

CRISIS

Patient develops an addiction disorder

Patient in ER for poisoning from opioid plus benzodiazepine ++
Trauma can be easily screened for and effectively treated at low cost

eliminating the need for opioid
AN OVERSIMPLIFICATION!

Nervous system normalization

Symptoms

- Fatigue
- Addiction
- Depression
- Anxiety
- Insomnia
- Chemical coping
- Short lifespan
- Obesity
- Pain for psych.

Neurocognitive therapies
## TEAM BASED PAIN CARE PROPOSAL: BUNDLED CORE SERVICES

<table>
<thead>
<tr>
<th>SERVICES</th>
<th>COST</th>
</tr>
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<tbody>
<tr>
<td>Population: &gt;20 MED, pain &gt;3 months, Positive psychosocial screen</td>
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<tr>
<td>Duration: 6 months</td>
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<td><strong>SERVICES</strong></td>
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<tr>
<td>1 Behavioral Pain medicine in pain COE</td>
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<tr>
<td>2 Physician in pain COE</td>
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<tr>
<td>2 follow up visits*</td>
<td>200</td>
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<tr>
<td>3 NP medical management in pain COE</td>
<td>600</td>
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<tr>
<td>6 follow up visits</td>
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<tr>
<td>4 Somatic Experiencing**</td>
<td>1200</td>
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<tr>
<td>12 visits</td>
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<tr>
<td>5 Acupuncture or Chiropractic</td>
<td>1200</td>
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<tr>
<td>12 visits</td>
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<tr>
<td>6 Physical Therapy</td>
<td>1135</td>
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<td>eval and 12 visits</td>
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<tr>
<td>7 Team Conference x 1 (TDR***)</td>
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<tr>
<td>BH</td>
<td>50</td>
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<tr>
<td>MD/NP</td>
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<td>PT</td>
<td>50</td>
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<td>PCP</td>
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<tr>
<td>8 Urine Drug Screening (x3 at 250 per test)</td>
<td>750</td>
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<td>Case rate</td>
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For: 6 months treatment to include Medic NP for meds, 6 CBT sessions, 12 acupuncture
How to solve the Opioid Crisis

Acute Pain in a patient with trauma history

First Percocet script

CRISIS
Patient in ER for poisoning from opioid plus benzodiazepine ++

TREAT THE ROOT CAUSE

I feel better, calmer, less anxious, how do I get more?

Request for more Percocet

SCREEN for trauma and addiction

Patient who is already on chronic opioids

INTERCEPT

INTERCEPT

INTERCEPT

SCREEN for trauma and addiction

Patient in ER for poisoning from opioid plus benzodiazepine ++

Request for more Percocet

SCREEN for trauma and addiction