

POWER OVER PAIN

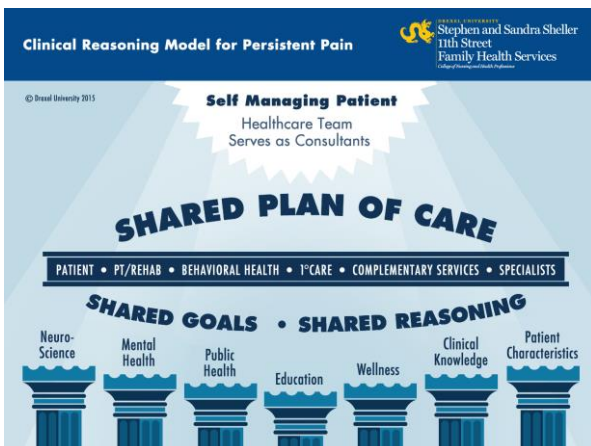
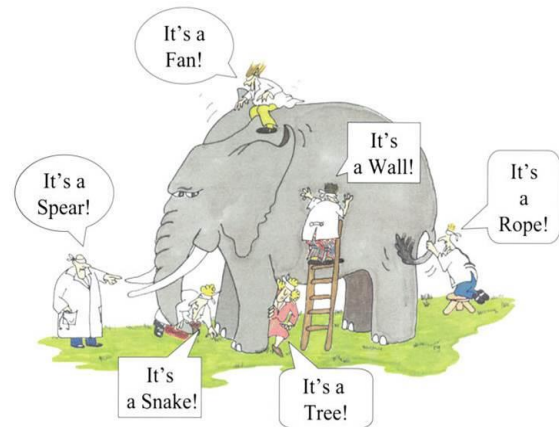
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11th Street Family Health Services

- Clinic Information
 - Multidisciplinary center:
 - Primary care
 - Dental
 - Behavioral health (social work, art/dance/music therapy, psychology)
 - Physical therapy
 - Supportive services (fitness, CIT, multiple classes and groups, etc.)
- Neighborhood Demographics
 - Median family income: \$13,000
 - Uninsured: 40%
 - Adverse childhood experiences (ACE) score of 4 or more: 49%

Chronic Pain at 11th Street

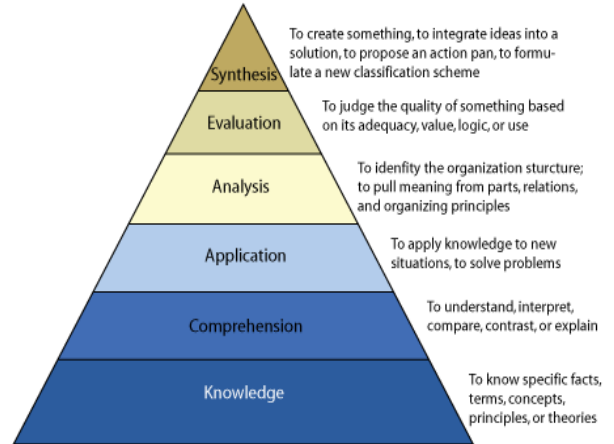
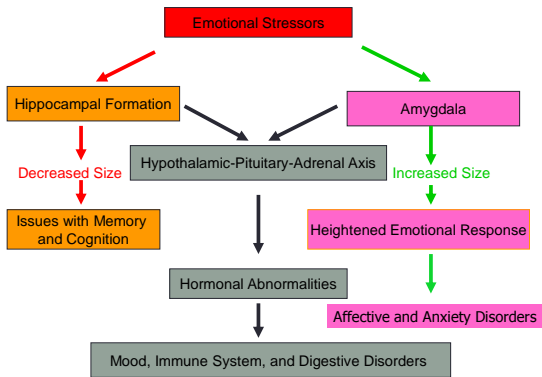
- Challenging to coordinate care
- PCP died
- Opioid reliant patients
- Idea of centering
- We wanted to:
 - Coordinate care
 - Educate and empower patients
 - Provide high quality evidence based care
 - Provide trauma informed care
 - Build resilience
 - Engage patients
 - Taper opioid use



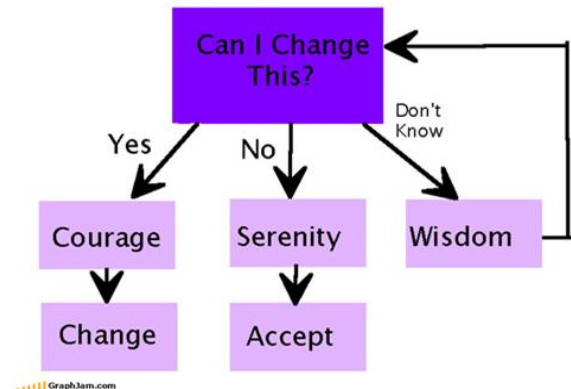
ACE: Dose Dependent Risk Factor

- Mental Health Concerns
 - Schizophrenia
 - Anxiety
 - Depression
 - Bipolar disorder
 - Personality disorders
- Physical Health Concerns
 - Headaches
 - Asthma
 - Hypertension
 - High cholesterol
 - Respiratory infections
 - Chest pain
 - Sexually transmitted diseases
 - **Chronic pain**
 - Substance and alcohol abuse
 - Hyperlipidemia
 - Diabetes
 - Obesity
 - **Multiple somatic complaints**
- Social Health Concerns
 - ↓ success in education and employment
 - ↓ economic success
 - ↑ maladaptive coping patterns
 - ↑ risky behaviors

Neuroplastic Changes Resulting From Chronic Emotional Stress



The Serenity Prayer as a Flow Chart



Power Over Pain

- Open psycho-educational group
- 12 weeks
- 18 handouts
- Multidisciplinary education
- Instruction
 - Lecture
 - Small group discussion
 - Reading (handouts and book)
 - Problem solving
 - Idea sharing
- Social worker every session to assure healthy group culture
- "Tool kit"

Curriculum

- bit.ly/poweroverpain
 - Tool kit, goal setting and becoming your own pain expert (neuroscience education)
 - Medications
 - Exercise, pacing and graded exposure
 - Diet and nutrition
 - Mindfulness and learning to relax
 - Barrier assessment and goals check-in
 - Fighting fatigue
 - Metaphoric and motor imagery
 - Music for pain management
 - Changing thoughts, feelings, and behavior
 - Communication and relationships
 - Gaining self-confidence, building resiliency and conclusion of group with goals check-in

Preliminary Findings

- **Theme 1: Transformation from being stuck to feeling empowered**
 - BEFORE: stuck physically, emotionally, cognitively, and socially
 - AFTER: better at self care, felt empowered and motivated, and had a better understanding of chronic pain that helped break/deal with stigmas
- **Theme 2: Most valued aspects of the POP program**
 - Social support, shared experience, exchange of ideas
 - Refocus on positive things
 - Renewed appreciation of exercise and activities
 - Relaxation techniques and meditation
- **Theme 3: Preferred pain management techniques**
 - Exercise and activities
 - Relaxation
 - Meditation
 - Music (to refocus, relax, or energize)
 - Social engagement (e.g. interacting and talking with others, helping others)

Patient Quotes

- “And not really focusing on the pain. Instead just doing what I can do and what I can’t do I just don’t try to force myself to do things. So that also helps me cope with it.”
- “You have someone to talk to that knows that you’re not lying.”
- “Yeah it gave me a new knowledge about pain and how to redirect my thinking, you know like photography it kind of helped me like take the cover off so I can get a better view, and a brighter perspective about the direction I’m going in now.”
- “I really got a lot out of it as far as different little homemade remedies you could do to ease this pain instead of always medicated, medicated.”

References

- Berra C, Kulich R, Rattinall J. Tapering long-term opioid therapy in chronic noncancer pain: evidence and recommendations for everyday practice. *Mayo Clin Proc.* 2015; 90(8): 929-942.
- Björnsdóttir SV, Jónsson SH, Valdimarsdóttir UA. Mental health indicators and quality of life among individuals with musculoskeletal chronic pain: A nationwide study in Iceland. *Scand J Rheumatol.* 2014; 43(5): 419-423.
- Boyle, LM. A neuroplasticity hypothesis of chronic stress in the basolateral amygdala. *Yale J Biol Med.* 2013; 86: 117-125.
- Davis KD, Moayedi M. Central mechanisms of pain revealed through functional and structural MRI. *Journal Of Neuroimmune Pharmacology: The Official Journal Of The Society On Neuroimmune Pharmacology.* 2013; 8(3):518-534.
- Dobscha SK, Corson K, Perrin NA, et al. Collaborative care for chronic pain in primary care: a cluster randomized trial. *JAMA.* 2009;301(12):1242-52.
- Dowell D, Haegerich T, Chou R. CDC guideline for prescribing opioids for chronic pain—United States, 2016. *JAMA.* 2016; ?????
- Felitti VJ, Anda RF, Nordenberg D, Williams DF, Spitz AM, Edwards V, Koss MP, et al. The relationship of adult health status to childhood abuse and household dysfunction. *American Journal of Preventive Medicine.* 1998; 14:245-258
- Flor H. Psychological pain interventions and neurophysiology: Implications for a mechanism-based approach. *Am Psychol.* 2014; 69(2): 185-196.

References

- Gatchal RJ, Bo Peng Y, Peters ML, Fuchs PN, Turk DC. The biopsychosocial approach to chronic pain: scientific advances and future directions. *Psychological Bulletin.* 2007; 133(4): 581-524.
- General E, Vogelzangs N, Macfarlane GJ, Geenen R, Smit JH, de Geus EJCJ, Penninx BWJH, Dekker J. Biological stress systems, adverse life events and the onset of chronic multisite musculoskeletal pain: a 6-year cohort study. *Ann Rheum Dis.* 2015; 0: 1-8.
- Hoelen M. Chronic pain and mental health disorders: shared neural mechanisms, epidemiology, and treatment. *Mato Clin Proc.* 2016; 91(7): 955-970.
- Kamper SJ, Apeldoorn AT, Chiarotto A, et al. Multidisciplinary biopsychosocial rehabilitation for chronic low back pain: Cochrane systematic review and meta-analysis. *BMJ.* 2015;350:h444.
- Karoly P, Rueschman LS. Psychological “resilience” and its correlates in chronic pain: Findings from a national community sample. *Pain.* 2006; 123(1-2): 30-37.
- Kayes CL. Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *Am Psychol.* 2007; 62: 95-108.
- Koplecman C, Chard A. Adverse early life experiences as a social determinant of mental health. *Psychiatric Annals.* 2014; 44(1): 39-45.
- Louw A, Diener I, Butler D, Puentedura E. The effect of neuroscience education on pain, disability, anxiety, and stress in chronic musculoskeletal pain. 2011; 92: 2041-2056.
- Lynch L, Waite R, Davey M. Adverse childhood experiences and diabetes in adulthood: Support for a collaborative approach to primary care. *Contemporary Family Therapy.* 2013; 35: 639-655.

References

- Miciak M, Gross D, Joyce A. A review of the psychotherapeutic ‘common factors’ model and its application in physical therapy: the need to consider general effect in physical therapy practice. *Scand J Caring Sci.* 2012; 26: 394-403.
- Monticone M, Ambrosini E, Rocca B, Magni S, Brivio F, Ferrante S. A multidisciplinary rehabilitation programme improves disability, kinesiophobia and walking ability in subjects with chronic low back pain: results of a randomised controlled pilot study. *Eur Spine J.* 2014;23(10):2105-13.
- Moseley GL, Nicholas MK, Hodges PW. A randomized controlled trial of intensive neurophysiology education in chronic low back pain. *Clin J Pain.* 2004;20(5):324-30.
- Moseley GL. Evidence for a direct relationship between cognitive and physical change during an education intervention in people with chronic low back pain. *Eur J Pain.* 2004;8(1):38-45.
- Nijs J, Van Houdenhove B, Oostendorp RAB. Recognition of central sensitization in patients with musculoskeletal pain: application of pain neurophysiology in manual therapy practice. *Manual Therapy.* 2010; 15: 135-141.
- Oslund S, Robinson RC, Clark TC, et al. Long-term effectiveness of a comprehensive pain management program: strengthening the case for interdisciplinary care. *Proceedings (Baylor University Medical Center).* 2009;22(3):211-214.
- Plack M, Driscoll M. (2011). *Teaching and Learning in Physical Therapy: From Classroom to Clinic.* Thorofare, NJ: SLACK Inc. Arch Phys Med Rehabil.
- Scascighini L, Toma V, Dober-Spielmann S, Sprott H. Multidisciplinary treatment for chronic pain: A systematic review of interventions and outcomes. *Rheumatology.* 2008; 47(5): 670-678
- Waite R, Davey M, Lynch, L. Self-rated health and association with ACEs. *J of Behavioral Health.* 2013; 2(3): 197-205.
- Waite R, Patricia AS. Childhood trauma and adult self-reported depression. *ABNF Journal.* 2013; 23(1): 8-13.

RESOURCES

For Providers and Patients

Neuroscience

- Canadian Pain Coalition: Overcome Pain
 - Great for patients but, each part is 45 in long so it is for the right person at the right time
 - http://www.canadianpaincoalition.ca/media/video/overcome_pain/part_1/
 - http://www.canadianpaincoalition.ca/media/video/overcome_pain/part_2/
 - http://www.canadianpaincoalition.ca/media/video/overcome_pain/part_3/
- Moseley Ted Talk
 - <https://www.youtube.com/watch?v=gwd-wLDHjs>

Behavioral Health

- Trauma informed care
 - http://trauma-informed.ca/wp-content/uploads/2013/10/Trauma-informed_Toolkit.pdf
- APA Resilience Information
 - <http://www.apa.org/helpcenter/road-resilience.aspx>
- Resilience Ted Talk: The Idea of Emotional Hygiene
 - http://www.ted.com/talks/guy_winch_the_case_for_emotional_hygiene?utm_source=newsletter_weekly_2015-02-21&utm_campaign=newsletter_weekly&utm_medium=email&utm_content=talk_of_the_week_button

Public Health

- Institute of Medicine
 - IOM Report: Relieving Pain in America: A blueprint for Transforming Prevention, Care, Education and Research. Washington, DC: The National Academies Press, 2011.
 - <http://www.iom.edu/Reports/2011/Relieving-Pain-in-America-A-Blueprint-for-Transforming-Prevention-Care-Education-Research.aspx>
 - IOM Report: Living Well with Chronic Illness: A Call for Public Health Action
 - <http://www.iom.edu/Reports/2012/Living-Well-with-Chronic-Illness.aspx>
 - IOM Report: Capturing Social and Behavioral Domains and Measures in Electronic Health Records
 - <http://iom.nationalacademies.org/Reports/2014/EHRdomains2.aspx>
 - IOM Report: New Directions in Child Abuse and Neglect Research
 - <http://www.iom.edu/Reports/2013/New-Directions-in-Child-Abuse-and-Neglect-Research.aspx>

Public Health

- Adverse Childhood Experiences (ACE) Study
 - <http://acestudy.org/>
 - <http://www.cdc.gov/ace/>
 - http://www.acestudy.org/files/Gold_into_Lead-_Germany1-02_c_Graphs.pdf
- Summary of ACEs TED Talk
 - http://www.ted.com/talks/nadine_burke_harris_how_childhood_trauma_affects_health_across_a_lifetime
- Vince Felitti: Review of ACEs data – excellent review of data, 90 min
 - <https://www.youtube.com/watch?v=Me07G3Erbw8>
- ACEs Handout
 - http://www.preventionlane.org/wp-content/uploads/2015/01/ACES_handout-for-parents.pdf
- NPR All Things Considered Series: What Shapes Health?
 - <http://www.npr.org/series/389312217/what-shapes-health>

Education

- Overview of Adult Learning
 - <http://ed.ted.com/on/ZXsWtMMJ>
- Drexel University Power Over Pain Educational Handouts for Patients with Chronic Pain
 - bit.ly/poweroverpain
- The Pain Survival Guide: How to Reclaim Your Life
 - Dennis Turk, PhD and Frits Winter, PhD
 - ISBN: 978-1-4338-0486-1

Wellness

- WHO Activity Recommendations for Adults
 - http://www.who.int/dietphysicalactivity/factsheet_adults/en/
- CDC Activity Recommendations for Adults
 - <https://www.cdc.gov/physicalactivity/basics/adults/>
- WHO Dietary Recommendations for Adults
 - <http://www.who.int/mediacentre/factsheets/fs394/en/>
- Harvard School of Public Health Nutrition Source
 - <https://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/>

Your Colleagues

- Sarah Wenger, PT, DPT, OCS
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- The International Association for the Study of Pain
 - <http://www.iasp-pain.org/>
- The American Chronic Pain Association
 - <http://www.theacpa.org/default.aspx>
- Association of Clinicians for the Underserved
 - <http://clinicians.org/>

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