



Pain -2

Other contributors to pain



Key takeaways Pain-1

No pain receptors, pain pathways and pain center in the brain

Pain is not a readout of tissue state. “Your body is not broken”

Pain is ALWAYS Real- “I believe you”

Not causes but contributors to pain- Pain is very complex

All pain can change due to neuroplasticity

Top 3 ways to reduce pain is –learning about pain, active strategies, self-management skills.(Lorimer)

Intensive radiology can harm more than help.



What other factors influence pain

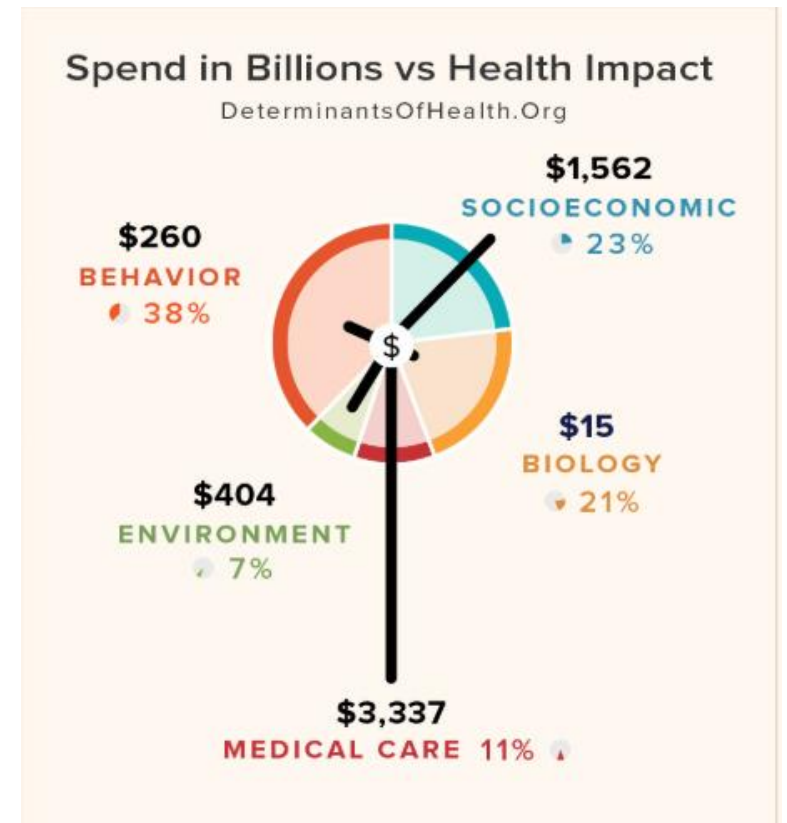
- Determinants of health.
- Trauma
- Health Literacy
- Self-care

Zooming out



Determinants of Health

- <https://www.goinvo.com/vison/determinants-of-health/>
- CDC (Center for disease control)
- WHO (World health Organization)
- Healthy People
- Kaiser Family Foundation
- NEJM (New England Journal of Medicine)
- Health Affairs
- Institute of Medicine
- New South Wales Department of Health

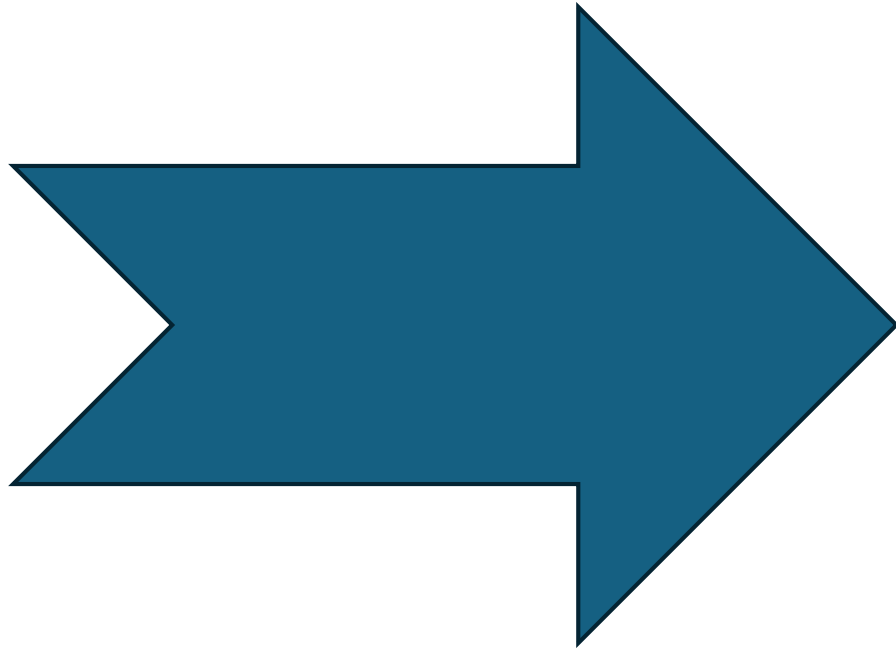


The impact of chronic diseases in America

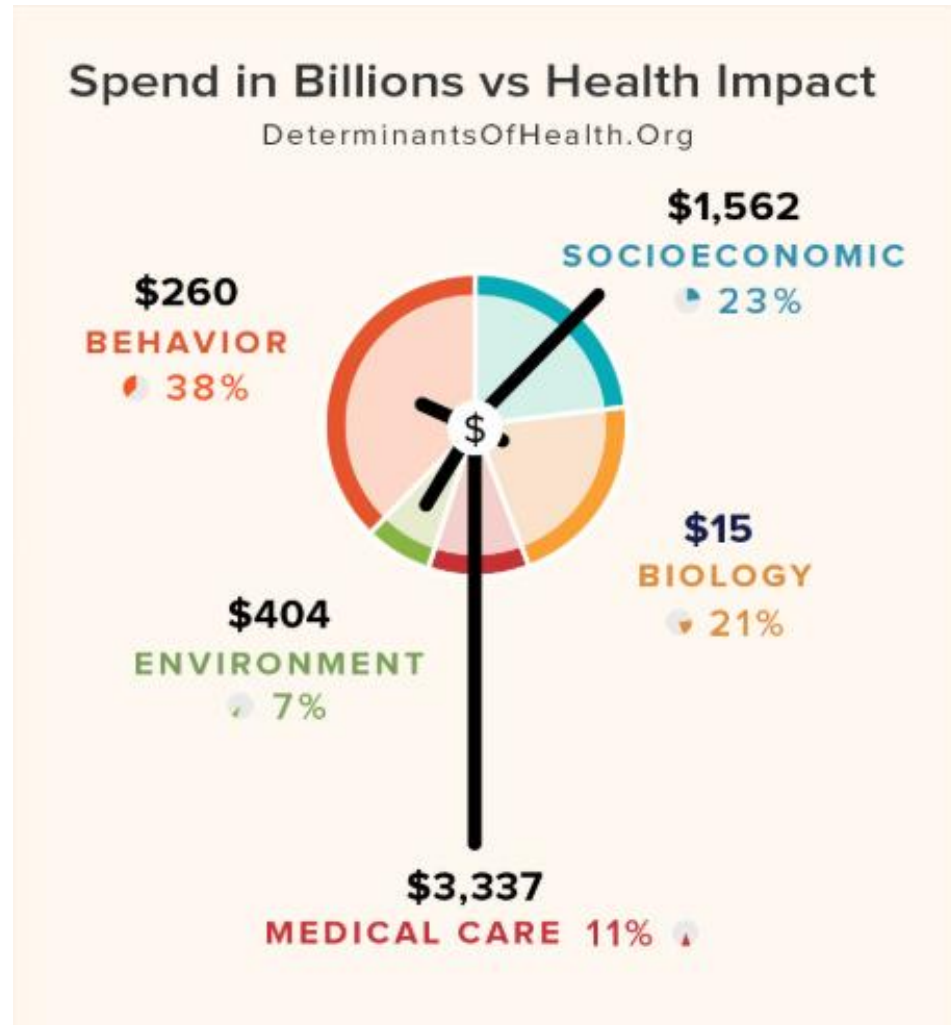
“Ninety percent of the nation's \$4.9 trillion in annual health care expenditures are for people with chronic and mental health conditions.”

- <https://www.cdc.gov/chronic-disease/data-research/facts-stats/>

Medical Care

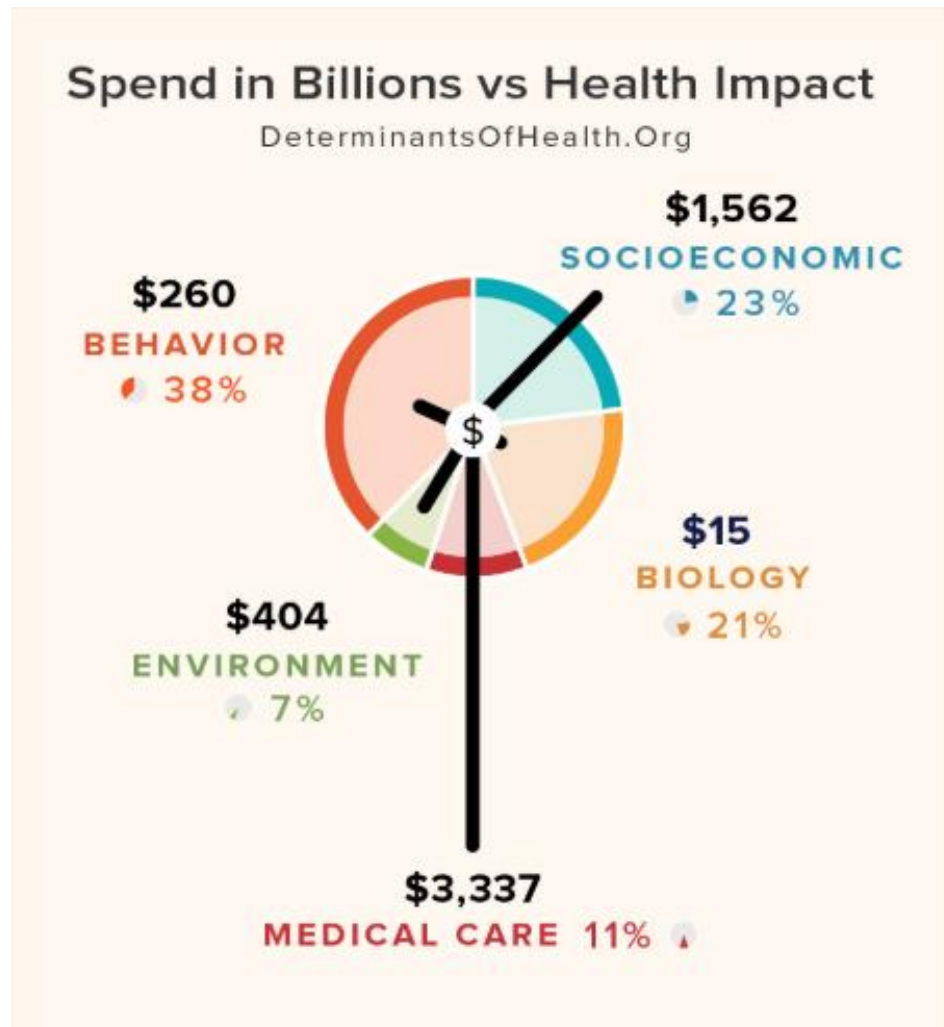


Environment 7%



- **Pollution**
- **Location- Zipcode**

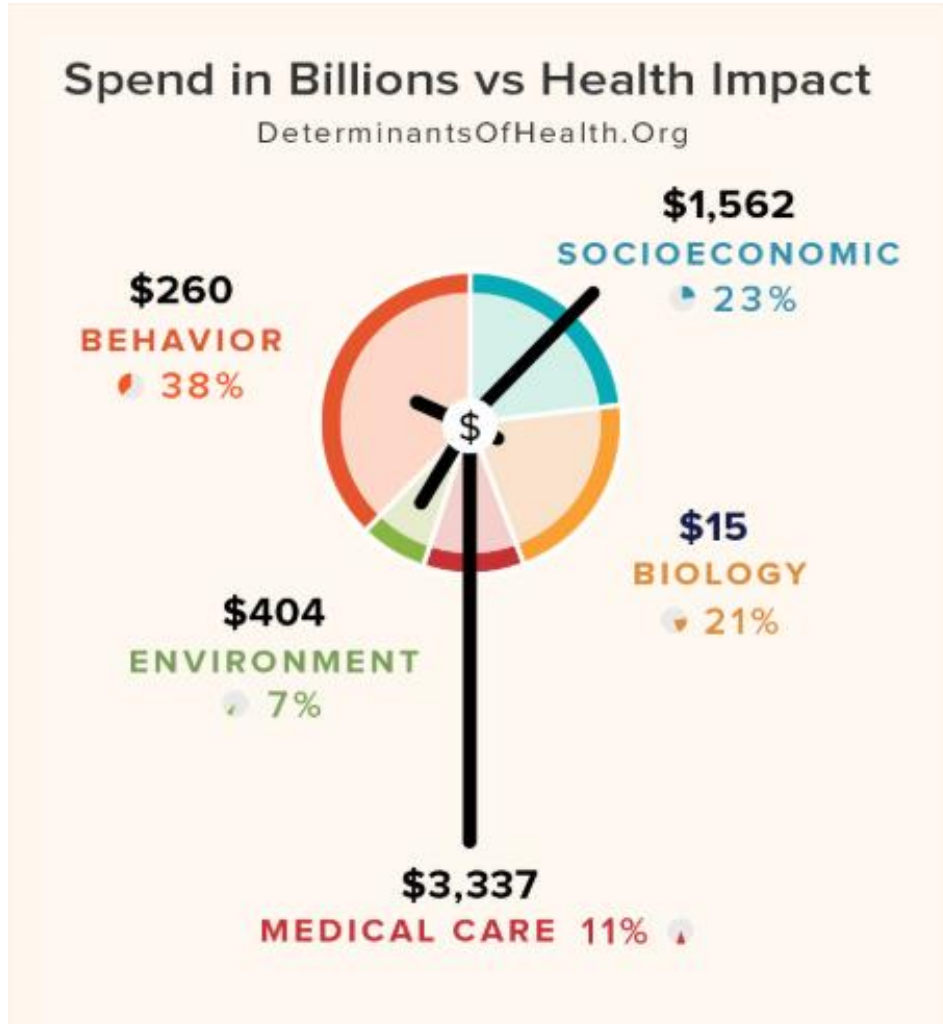
Behaviors-38%



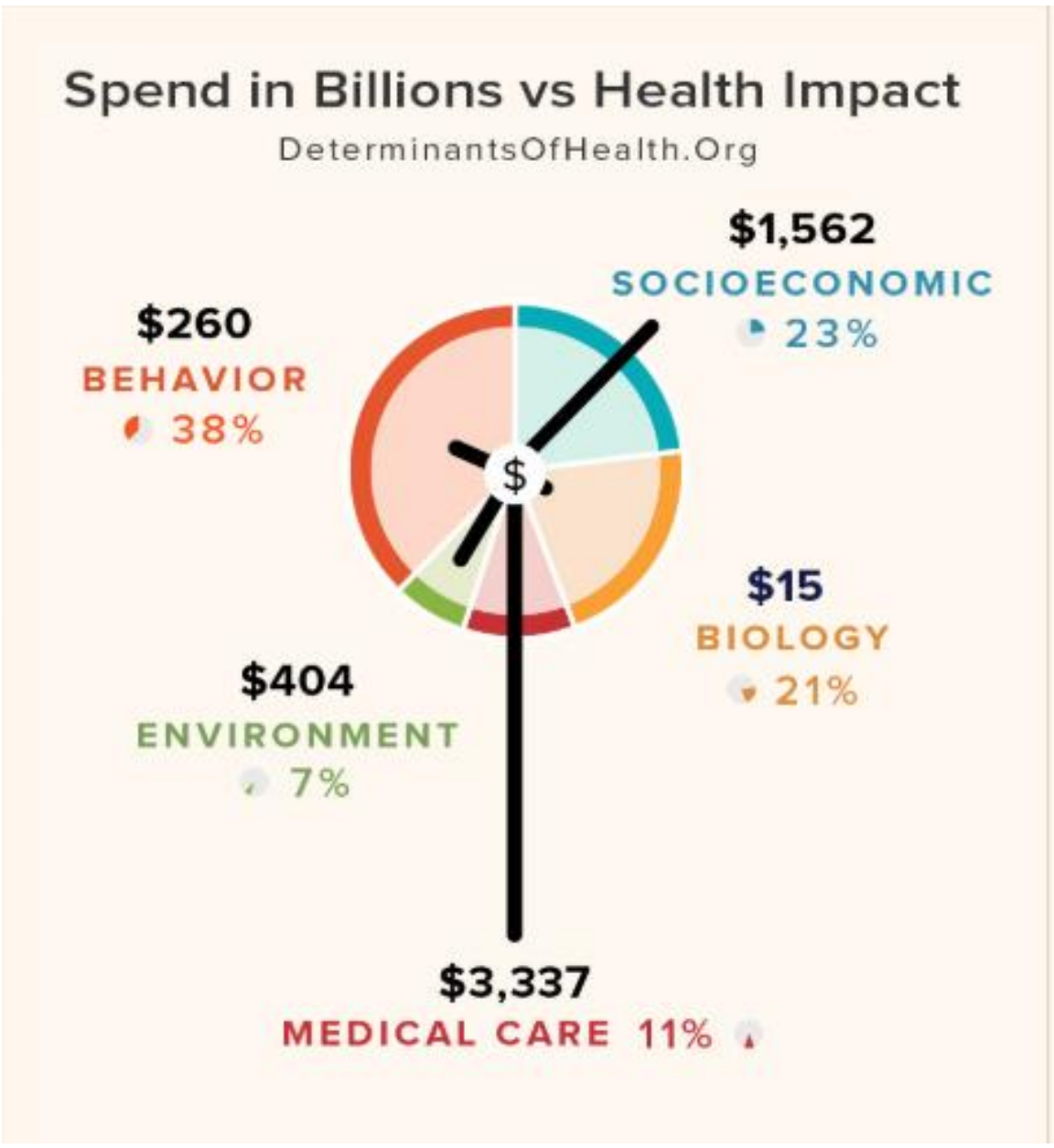
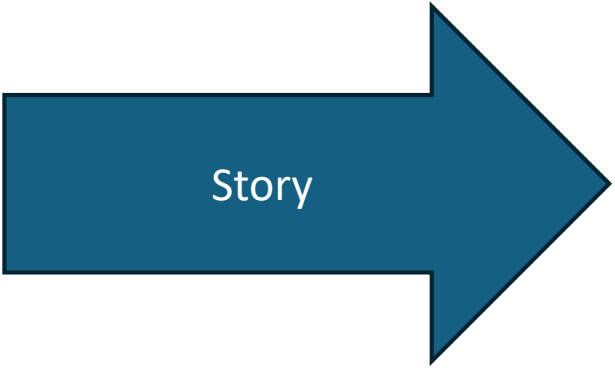
- **Gun Safety**
- **Alcohol and Tobacco use**
- **Drug abuse**
- **Physical Activity**
- **Sleep Patterns**
- **Diet Patterns**
- **Unsafe sexual activity**
- **Happiness**

<https://www.goinvo.com/vision/determinants-of-health/>

Socio economic factors-23%



- Incarceration
- Early childhood education
- Unemployment
- Low Income
- High school graduation
- College graduation
- Family and Social support
- Workplace Safety





M and M breaks

What Is Trauma?

“Traumatization occurs when both internal and external resources are inadequate to cope with the external threat.”

- Bessel van der Kolk, MD



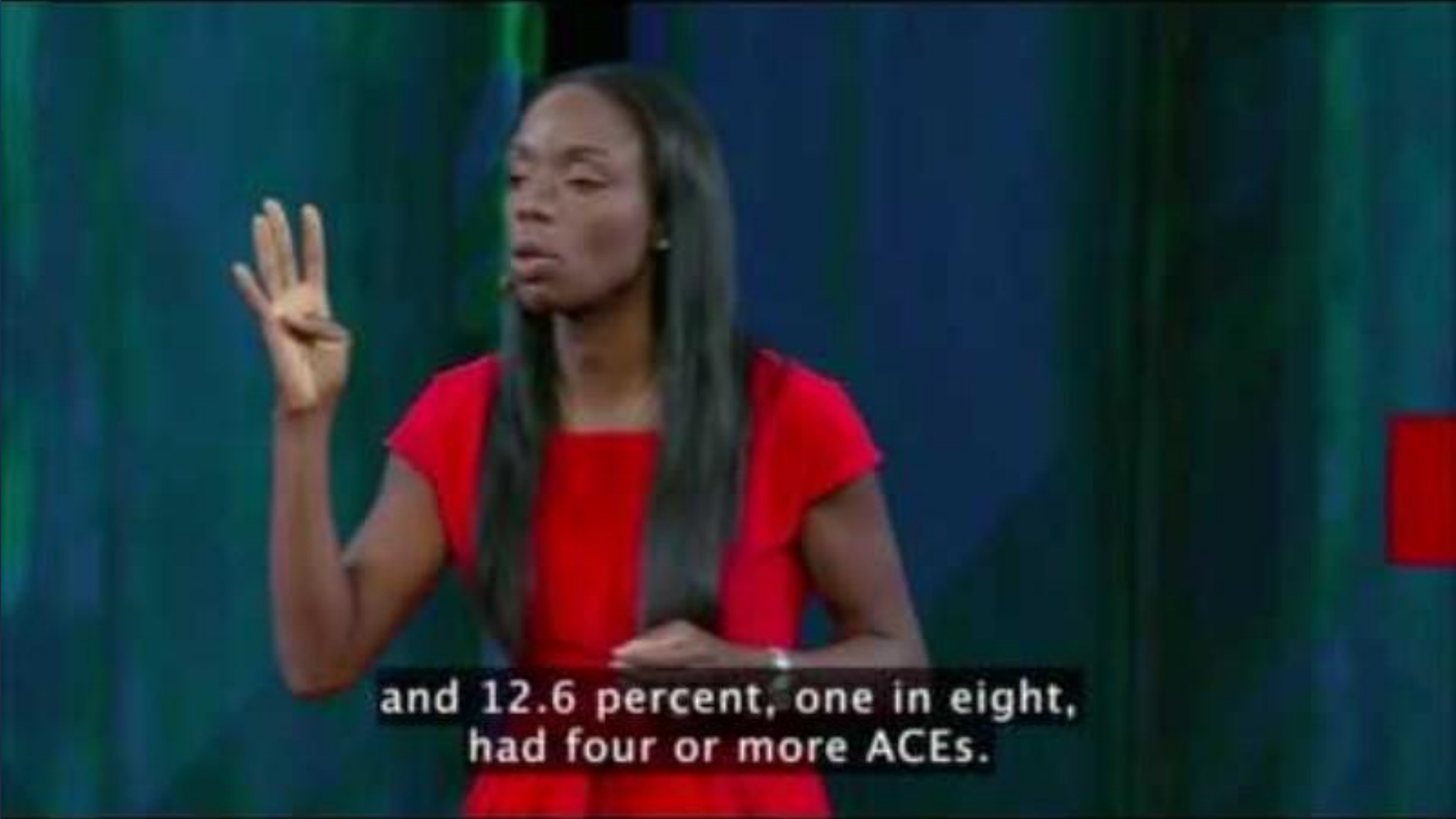
The Adverse Childhood Experiences Study

Research Article

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

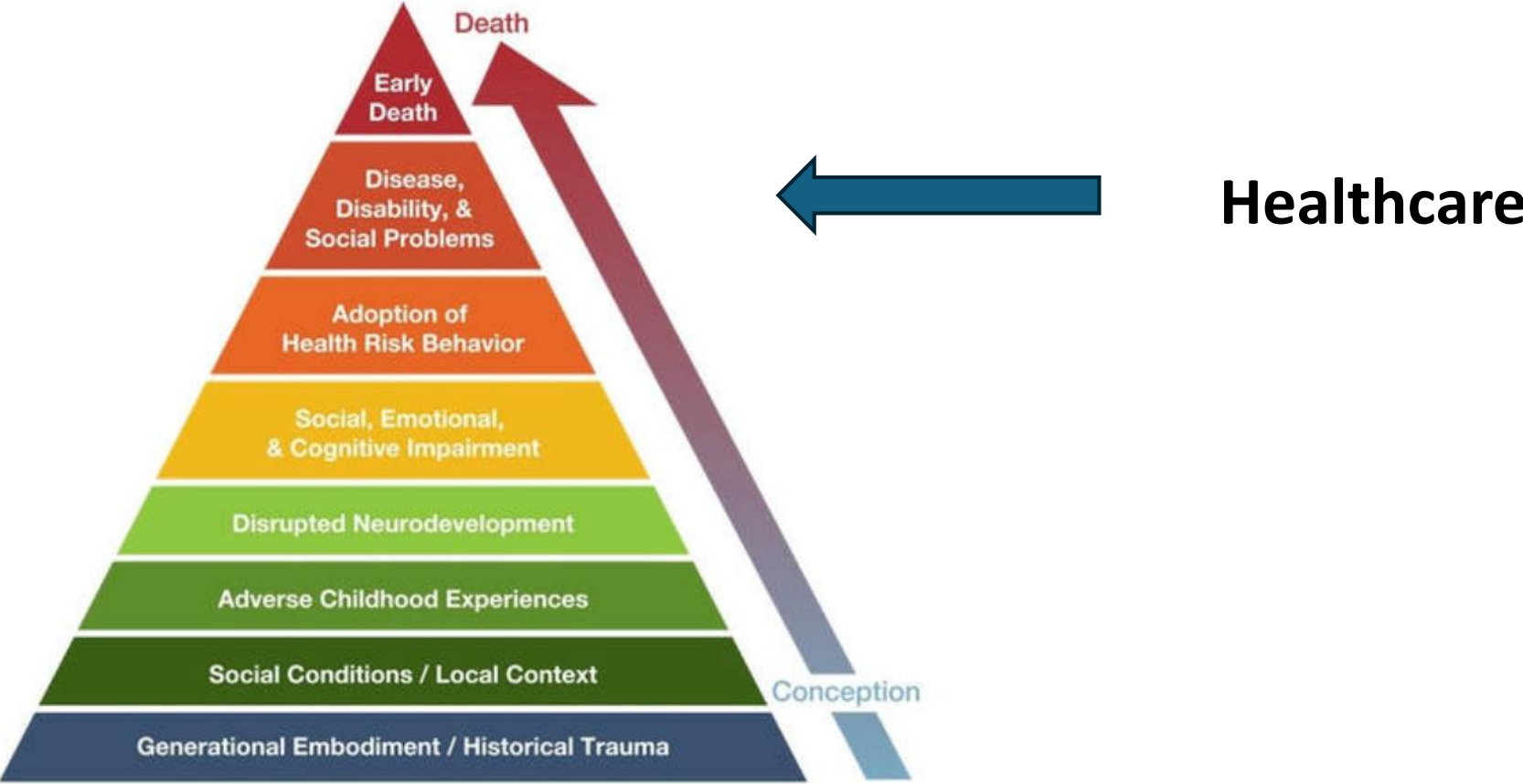
The Adverse Childhood Experiences (ACE) Study

- <https://pubmed.ncbi.nlm.nih.gov/9635069/>

A woman with long dark hair, wearing a bright red dress, is speaking on a stage. She is holding up her right hand, showing four fingers. The background is a dark blue or teal color with some vertical light patterns. A small red square is visible on the right side of the frame.

and 12.6 percent, one in eight,
had four or more ACEs.

Trauma informed care





M and M breaks

Health Literacy

- Health literacy is the ability to find, understand, appraise, and use health information and services to make informed decisions

Health literacy in the US is 6th grade

BILLIONS OR TRILLIONS? THE TRUE COST OF LOW HEALTH LITERACY WILL BLOW YOUR MIND.

DIRECT COSTS

- MISSED INSTRUCTIONS = MORE ER VISITS
- CONFUSED CARE PLANS = LONGER HOSPITAL STAYS
- MISUNDERSTOOD DISCHARGE NOTES = HIGHER READMISSION

**\$105B - \$238B
ANNUALLY**



INDIRECT COSTS

- MISSED WORK
- LOST WAGES
- BURNED-OUT CAREGIVERS
- LOST PRODUCTIVITY ACROSS ENTIRE HOUSEHOLDS AND COMMUNITIES

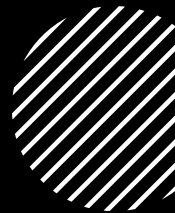
**\$1.6T - \$3.6T
ANNUALLY**

HUMAN SUFFERING

- PARENTS PARALYZED BY FEAR AND JARGON
- KIDS STUCK IN HOSPITALS LONGER THAN NEEDED
- CAREGIVERS MAKING MEDICAL MISTAKES OUT OF CONFUSION, NOT NEGLECT



Health Literacy



Keep it short



Keep it simple



Listen to what they really want to know




Address their fears

Spinal Stenosis

John's Story





As Providers
what we say
matters!

Make every word count

Teach Back

- Teach-back involves asking patients to explain in their own words what a health provider has just told them






M and M breaks



Selfcare before
Service



Physician shortage

- Medical DO
- Up to **85,000 (AAMC)** or **~141,000 by 2038**
- 34.1% increase in the number of Americans >65 years by 2036
- Over a third of physicians expected to retire in the next decade.
- Aging population, long training pipeline, retirement wave, burnout
- Longer wait times, less continuity, **more team-based care**

Association of American Medical Colleges. The Complexities of Physician Supply and Demand: Projections from 2021 to 2036. Published March 2024. Accessed December 5, 2024. <https://www.aamc.org/media/75236/download>



Nurses shortage

- **60,000+ shortage by 2030**; ongoing gaps regionally
- Large retirement wave (significant % nearing retirement age; estimates often ~**20–30%** depending on region)
- Burnout, COVID impact, turnover, aging workforce, poor work conditions
- Higher patient ratios, reliance on travel nurses, task shifting



PT shortage

- ~5.2% national PT shortage in 2022
- PT demand is projected to grow ~**14.7% by 2037**, faster than population growth.
- Nearly one-fourth of PT workforce reaching retirement age in the next decade
- Delayed rehab access, increased use of PTAs, group/remote rehab models

Coburn, B. (2025). *New workforce forecast projects physical therapist shortages through 2037*. American Physical Therapy Association.



Psychologists

- **Projected shortage of ~79,160 psychologists by 2037** (current service use)
- **Additional ~113,830 psychologists needed** to meet unmet mental health need
- Behavioral health workforce shortages projected across multiple professions
- U.S. Health Resources and Services Administration. (2023). *Health workforce projections for behavioral health occupations.*



Protect the asset

Who is the asset?

Selfcare before
service

A white, torn-paper-like border runs along the bottom edge of the image, starting from the left and extending towards the right, with a jagged, irregular edge.



TITANIC

M O D E L



COMMUNITY
WIN-WIN
SOCIETY
COMPASSION



SERVICE,
SAFE, HELPING OTHERS,
SOCIAL ENGAGEMENT, EMPATHY

SELFCARE,
SURVIVING, SELF KINDNESS, SELF
COMPASSION, SELF AWARENESS



“ACTIVE RESPONSE
TO THREAT”

SCARED, ANGRY, CONFLICT,
COMPETITION, FIGHT, FLIGHT

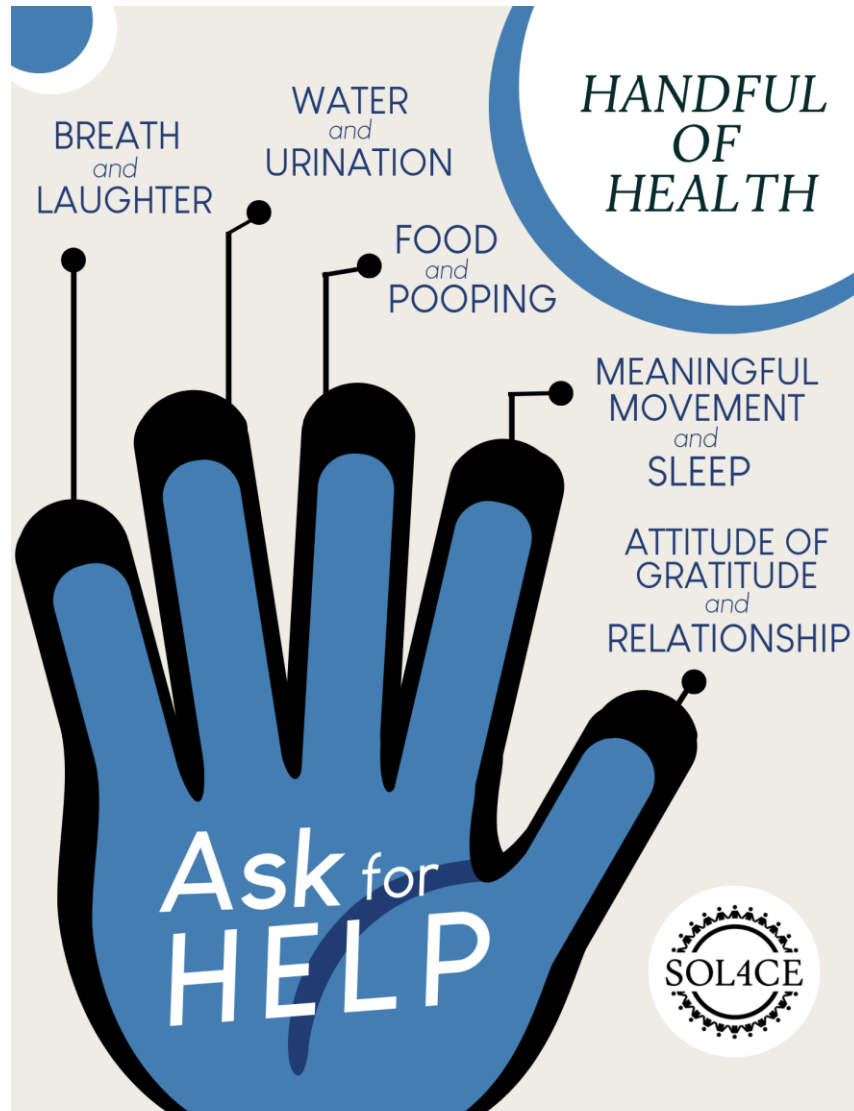
“PASSIVE RESPONSE
TO THREAT”

VICTIM, APATHY, HELPLESSNESS, HOPELESSNESS,
SHAME, TRAPPED, DEPRESSED, DISSOCIATION,
LETHARGY, FATIGUE, FREEZE, FOLD

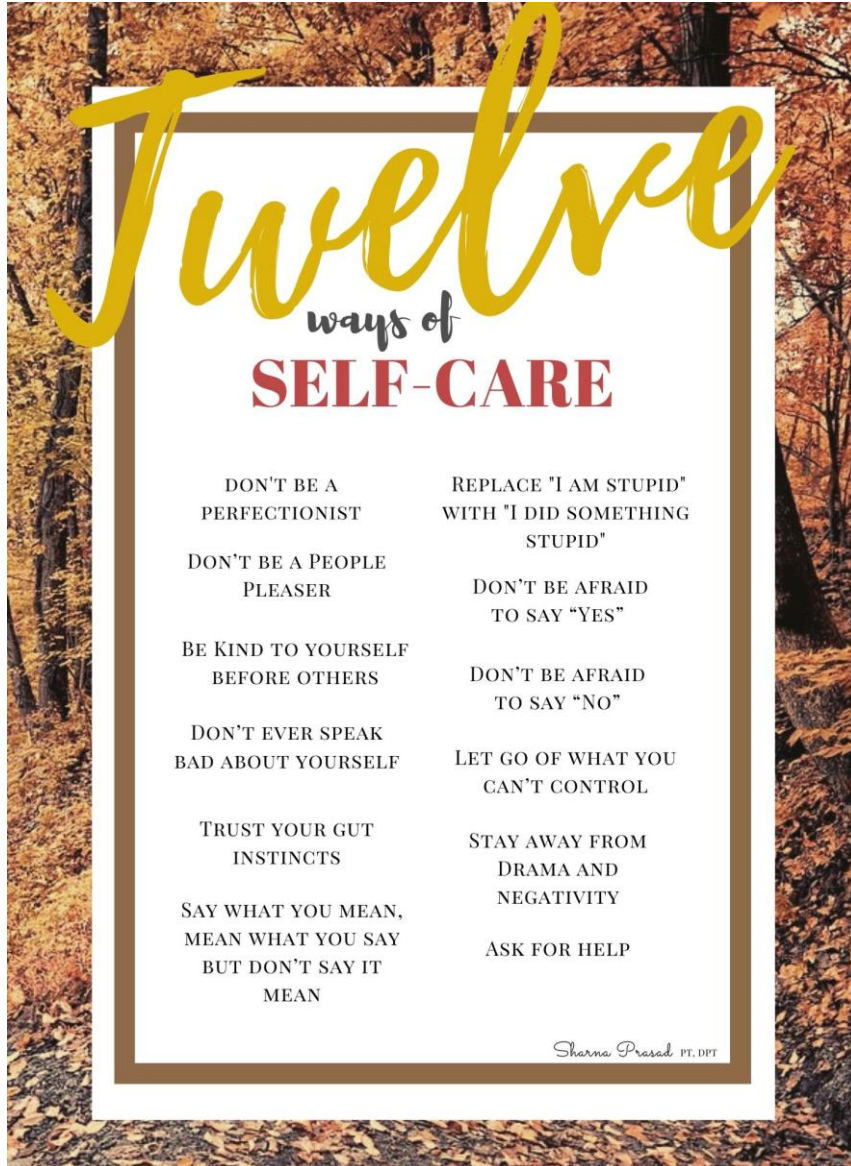




What is selfcare?



Sharna Prasad PT, DPT & Peter Smith PT

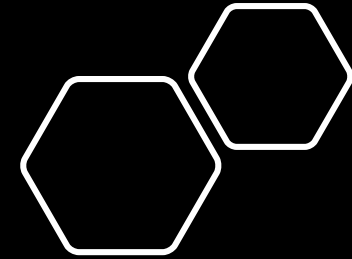


Twelve

ways of **SELF-CARE**

- | | |
|---|---|
| DON'T BE A
PERFECTIONIST | REPLACE "I AM STUPID"
WITH "I DID SOMETHING
STUPID" |
| DON'T BE A PEOPLE
PLEASER | DON'T BE AFRAID
TO SAY "YES" |
| BE KIND TO YOURSELF
BEFORE OTHERS | DON'T BE AFRAID
TO SAY "NO" |
| DON'T EVER SPEAK
BAD ABOUT YOURSELF | LET GO OF WHAT YOU
CAN'T CONTROL |
| TRUST YOUR GUT
INSTINCTS | STAY AWAY FROM
DRAMA AND
NEGATIVITY |
| SAY WHAT YOU MEAN,
MEAN WHAT YOU SAY
BUT DON'T SAY IT
MEAN | ASK FOR HELP |

Sharna Prasad PT, DPT





Service = Overflow of Self-Care

Service

Work
Parenting



Helping
Others

Art
Flow State
Pets
Nature
Laughter
Physical
Activity
Grounding
Music
Sleep
Hug
Meditation
Joy
Gratitude
Phone
Fasting
Play
Mindfulness
Massage
Social
Connection
Nutrition
Acts of
Kindness

Dr. Sharna Prasad PT, DPT, DipACLM

Healthcare shortage

- Healthcare providers are the assets
- We need to take care of our selves before our patients.
- We need creative programs that help us and our patients- while keeping cost down and making money for the organizations



What other factors influence pain

- Determinants of health.
- Trauma
- Health Literacy
- Self-care

Remember

All pain is pain

All pain is real

All pain can change

Pain is complex-

Pain is weird

Protect the asset

Reach out if you are
ready to serve fresh
bagels

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