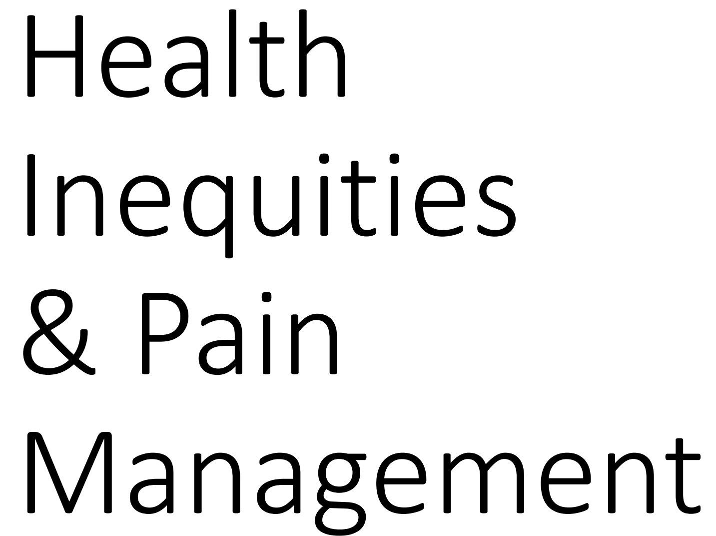


Health Inequities & Pain Management

Considering the larger historical & contemporary sociopolitical influences

Alicia J. Emerson, PT, DPT, PhD, MS

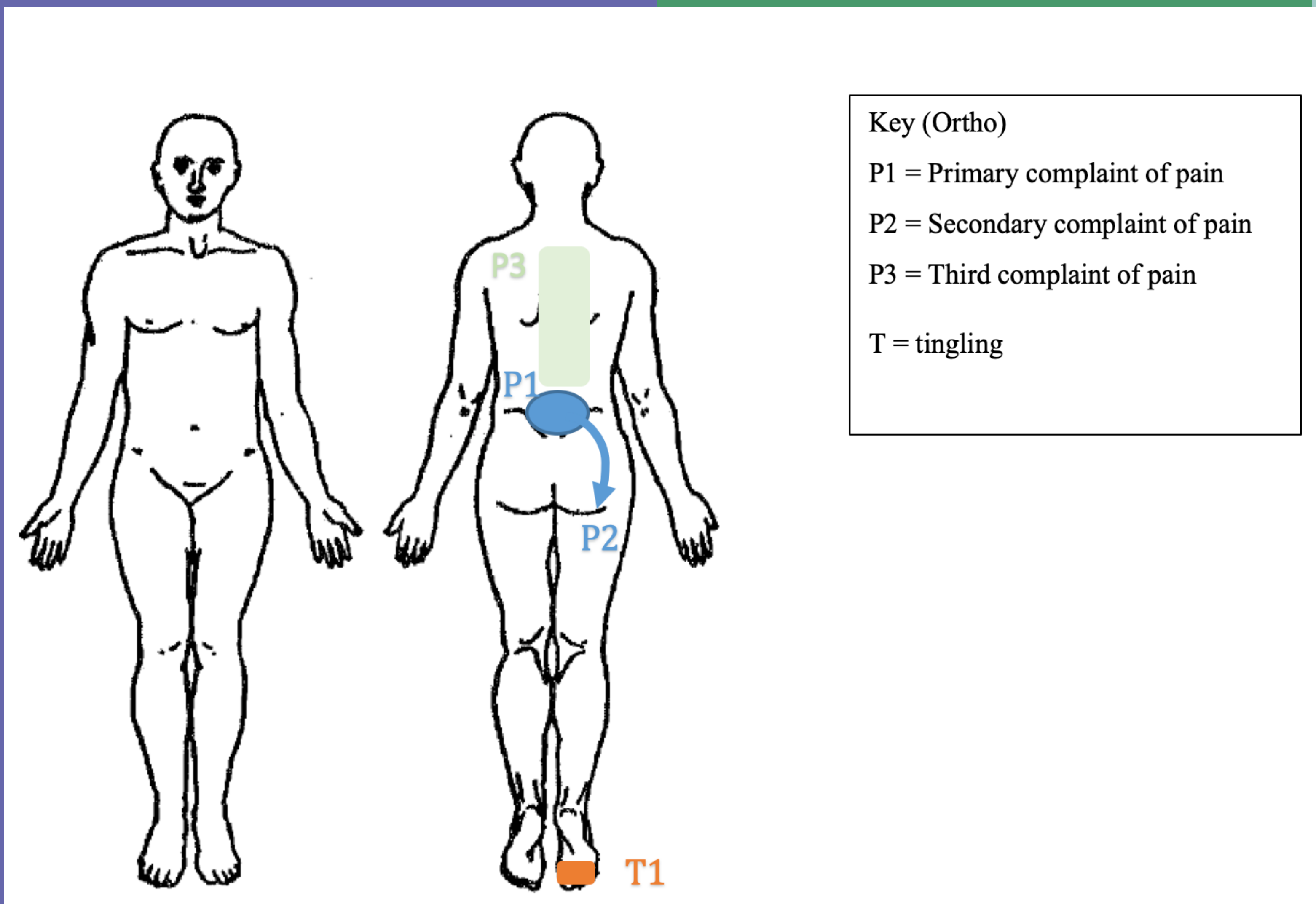
Board Certified – Orthopaedics

Fellow – AAOMPT

June 2024

PATIENT CASE

- 43-year-old male
- 2-year history of back pain after a work-related MVC.



[1]Tait & Chibnall, 1997-2011; [2]Jones & Rivette

Pain or Symptom Behaviors:

- P1: Sharp, then dull and achy, deep, sometimes catches with sitting-to-standing or standing-to-sitting
- P2: Dull and achy, sometimes burning
- P3: Deep pain, sometimes burning
- T1: Tingling in all 5 toes, sometimes into the calf, but not often

Aggravating factors:

- P1: Bending over (immediately), lifting/carrying, standing up (briefly), sitting > 20 minutes, driving > 20 minutes
- P2: Getting into a low car, trying to sit on the ground
- P3: Bending too far forward, trying to sit up tall
- T1: same as P1

Alleviating factors

- P1: Leaning backwards, standing for < 20 minutes
- P2: Hip in relaxed position
- P3: Slight stretching forward

[1]Tait & Chibnall, 1997-2011; [2]Jones & Rivette

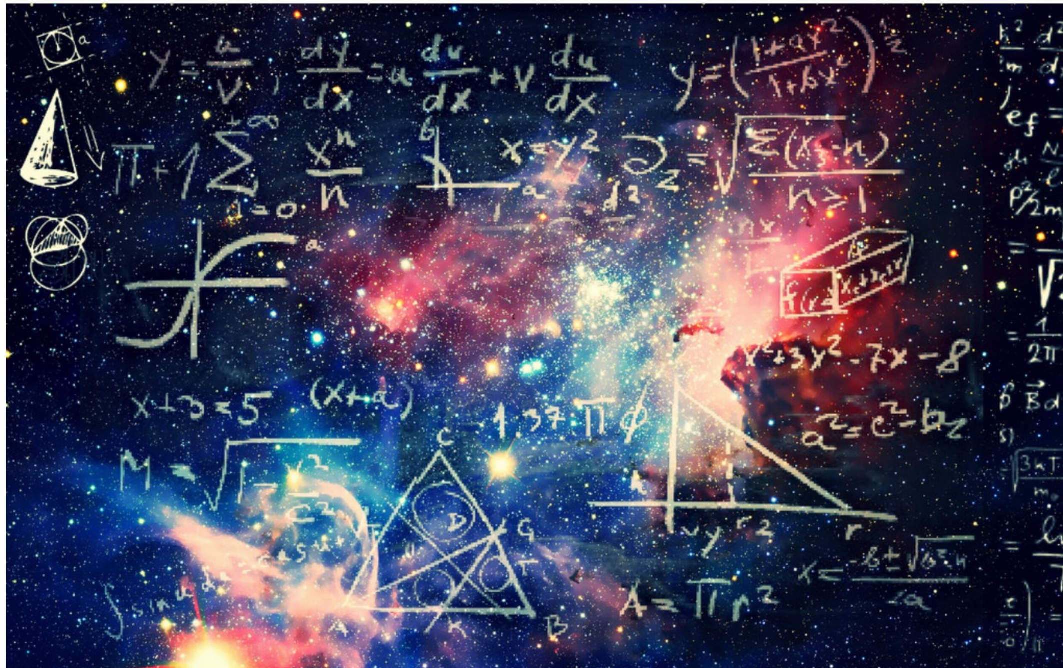
Diagnosis? Prognosis? Ease of connecting with the patient?

Objectives

- Gain an understanding of working definitions
- Recognize how to inform your clinical reasoning with robust screening
- Consider reflections/recommendations to improve the clinical conversation and decrease health inequities in chronic pain

Photo: A. Emerson

What ***does*** make an expert clinician in managing pain?



https://www.samwoolfe.com/2013/06/max-tegmark-universe-is-made-of.html

Chicago

Clinician x 15 years
(Clinical scientist)

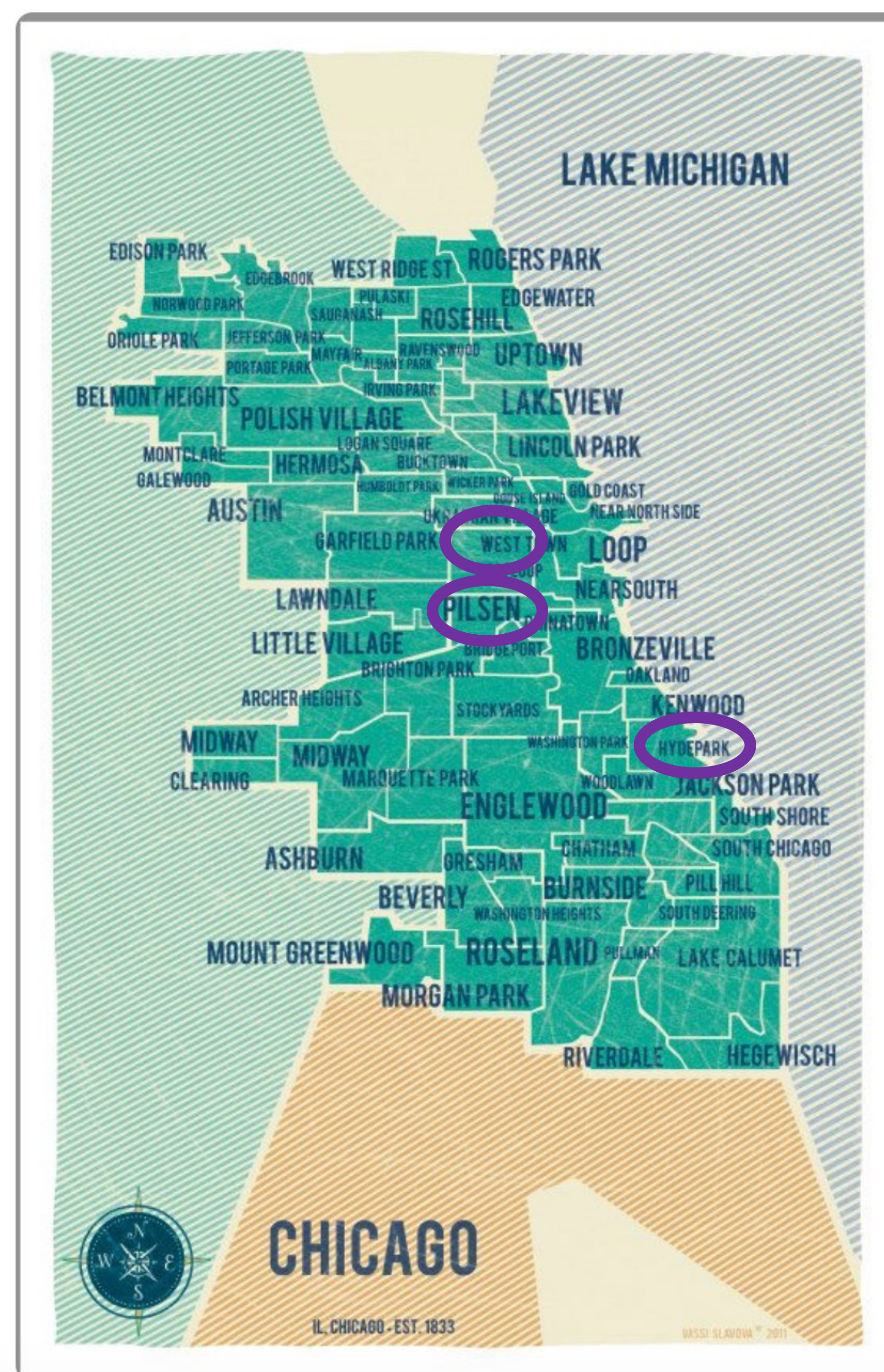
Master of Science: Physical Therapy
University of Indianapolis
Indianapolis, Indiana

Fellow, Orthopedic Manual Physical Therapy University of Illinois at Chicago
Chicago, Illinois

Board Certified Specialist Orthopedics –
American Board of Physical Therapy Specialties

Transitional Doctor of Physical Therapy
Governors State University
University Park, Illinois

Master of Science: Rehabilitation Sciences
University of Illinois at Chicago
Chicago, Illinois

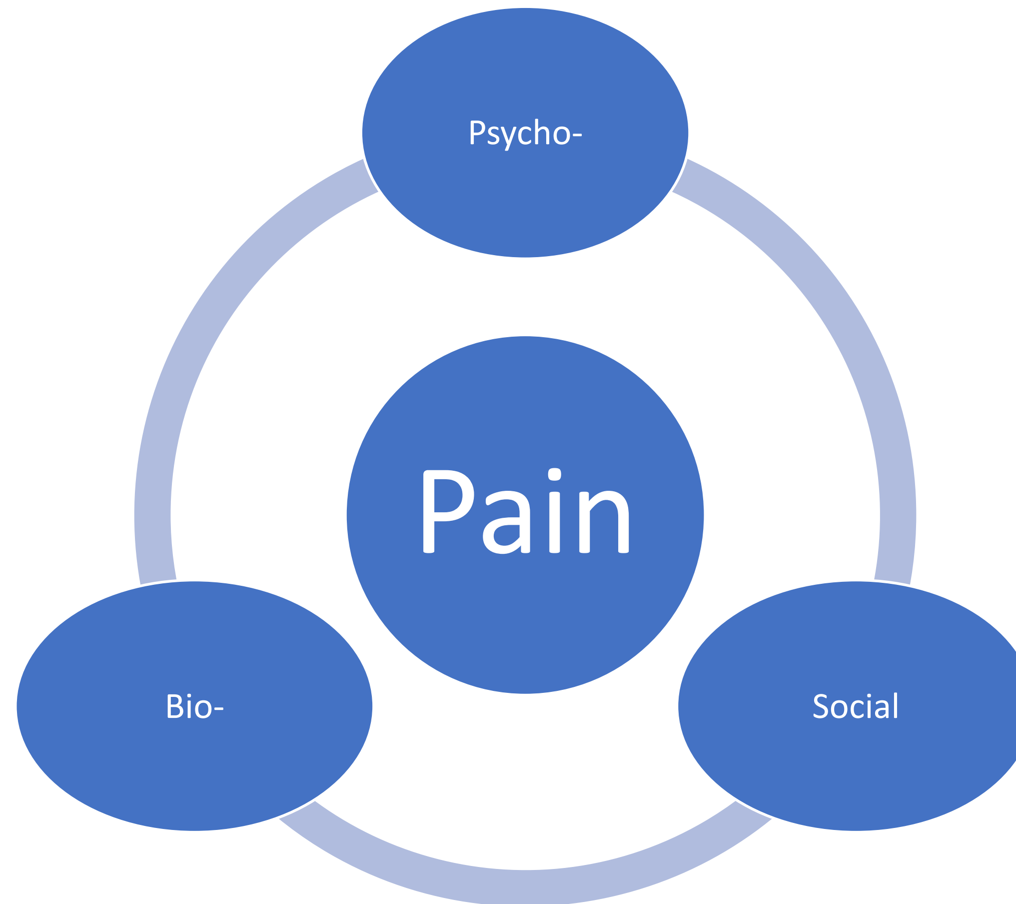


Clinical reasoning

- Framework for viewing the world
- Definition: the ***process*** for structuring the meaning of the information provided by the patient and other stakeholders and prioritizes management choices
- Should lead to “wise action”

Jones and Rivett. *Clinical Reasoning for Manual Therapists.1st ed.* Ch 1

Biopsychosocial framework



Biopsychosocial model modified from: Gatchel RJ, Peters ML, Fuchs PN, Turk DC. The Biopsychosocial approach to chronic pain: Scientific advances and future directions. Psychol Bulletin 2007;133(4):581-624.

Clinical reasoning includes

- Diagnostic reasoning – identifying the biopsychosocial contributing factors

  1. **hypothetico-deductive reasoning** – cues from initial evaluation lead to a diagnosis

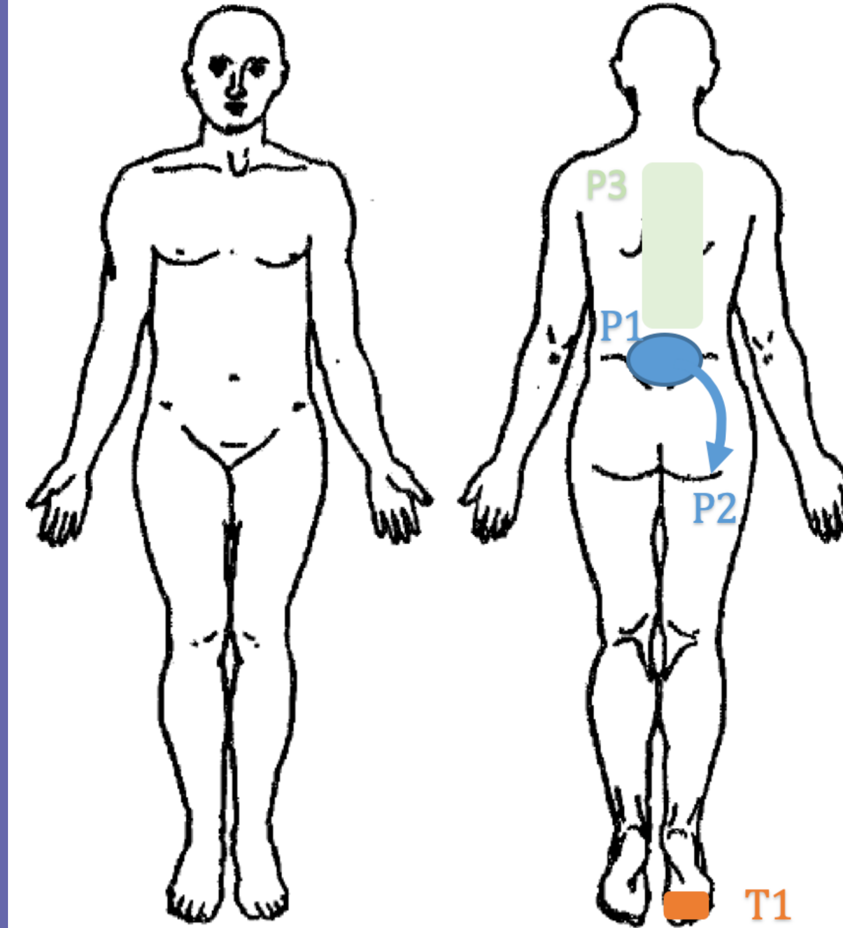
  2. **inductive reasoning** – use pattern recognition that makes almost instantaneous understanding based on the feature of the case

Edwards et al. Clinical reasoning strategies in physical therapy. *PTJ.* 2004;85:312-335.

THE CASE

Start building this case based on *your* experiences:

1. List up to 5 common comorbidities or risk factors
2. How does this patient typically “appear” in your clinic.
3. Describe your prognosis.
4. Why is that your prognosis?



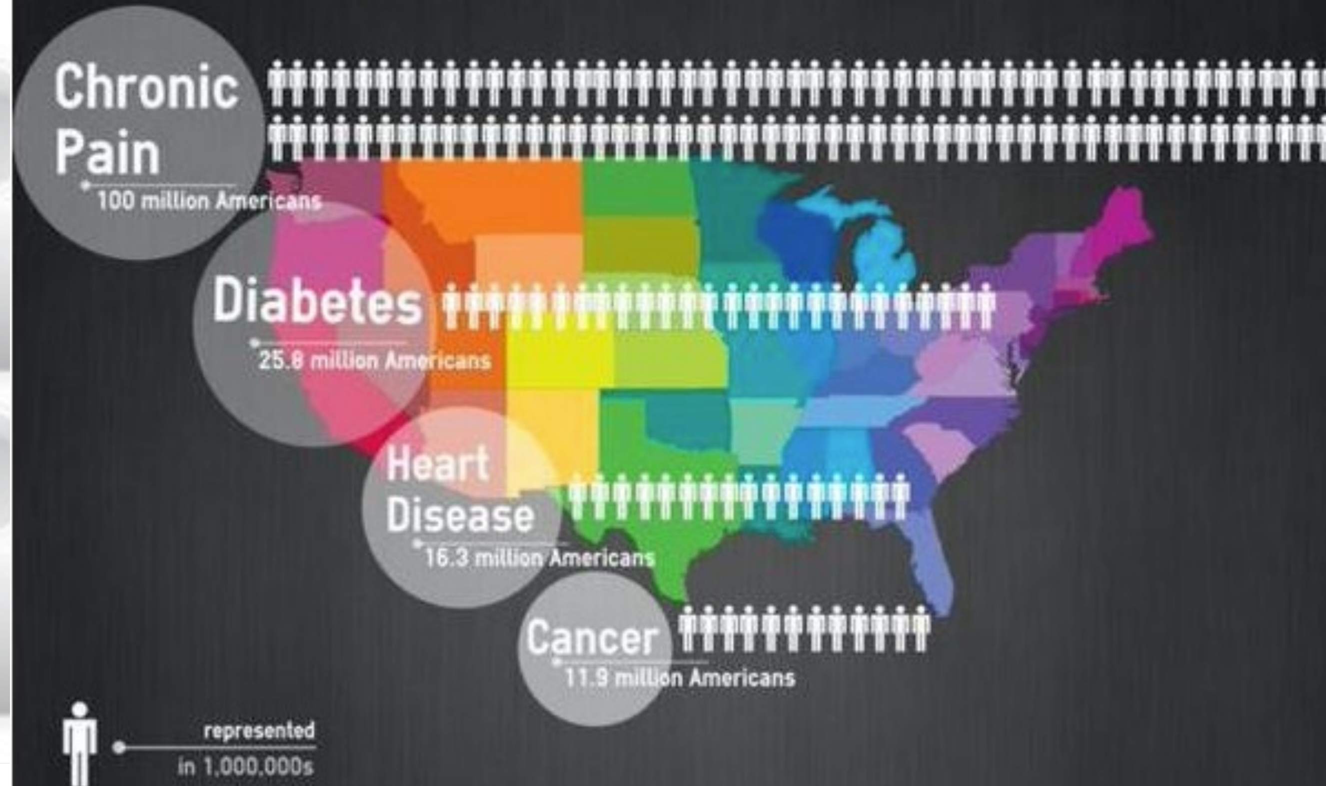
Narrative Reasoning

- Process of enquiry, examination, and reflective management
- Attempt for clinician to understand the patient's diagnosis (problem) and understand the patient's personal story (narrative)
- Goes beyond the chronological order
- Emphasizes the ***context***

Jones and Rivett. *Clinical Reasoning for Manual Therapists.1st ed.* Ch 1

Chronic musculoskeletal pain:
A Public Health Concern

More th ffering



$560-$635 billion healthcare expenditures per year

Gaskin DJ, Richard P. (2012). The Economic Costs of Pain in the US. 13; 715-724.
Medlanding.com
AAPM Facts and Figures on Pain. www.painmed.org

Disability-adjusted life years (DALYs)

- Difference between the current state of population health and an ideal situation (where everyone reaches the age of standard life expectancy in perfect health).
- Ideally want the DALY to be "0"

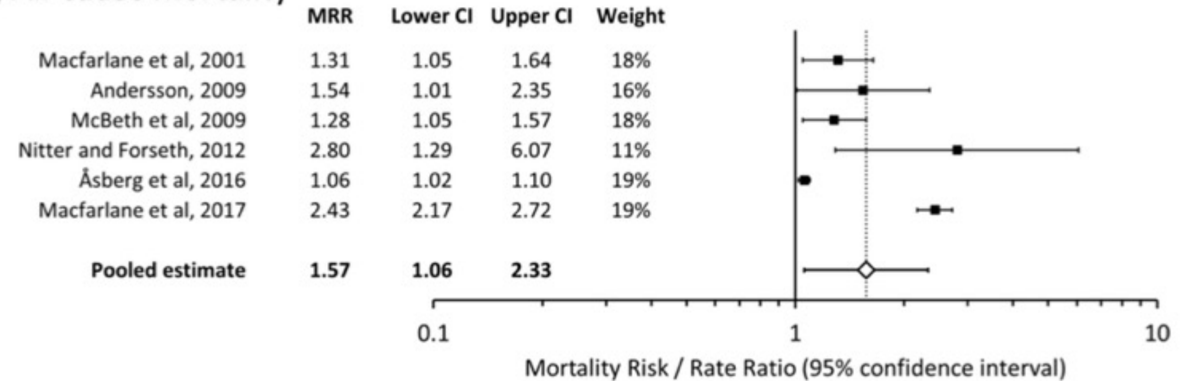
DALYs = Years of life lost due to premature mortality (YLL) + Years lived with disability (YLD)

DALYs = Years of life lost due to premature mortality (YLL) + Years lived with disability (YLD)

https://nccid.ca/publications/understanding-summary-measures-used-to-estimate-the-burden-of-disease/

Disability-adjusted life years (DALYs) in chronic pain

Downloaded from http://ard.bmj.com/ on January 10, 2018 - Published by group.bmj.com



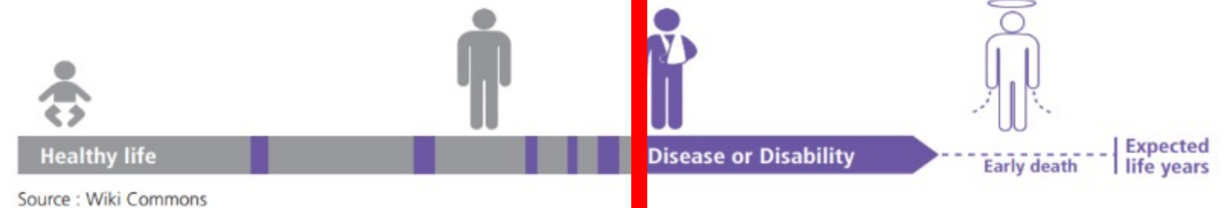
(a) All-cause mortality

	MRR	Lower CI	Upper CI	Weight
Macfarlane et al, 2001	1.31	1.05	1.64	18%
Andersson, 2009	1.54	1.01	2.35	16%
McBeth et al, 2009	1.28	1.05	1.57	18%
Nitter and Forseth, 2012	2.80	1.29	6.07	11%
Åsberg et al, 2016	1.06	1.02	1.10	19%
Macfarlane et al, 2017	2.43	2.17	2.72	19%
Pooled estimate	**1.57**	**1.06**	**2.33**	

DALY

Disability Adjusted Life Years measure the overall burden of disease, expressed as the cumulative number of years lost due to ill-health, disability or early death.

= **YLD** Years Lived with Disability + **YLL** Years Life Lost



Source : Wiki Commons

DALYs = Years of life lost due to premature mortality (YLL)
+ Years lived with disability (YLD)

DALYs = Years of life lost due to premature mortality (YLL) + Years lived with disability (YLD)

Macfarlane GJ, Barnish MS, Jones GT. Persons with chronic widespread pain experience excess mortality: longitudinal analysis results from UK Biobank and meta-analysis. *Ann Rheum Dis.* 2017;76:1815-1822.

Invisible pain … Disproportionately experienced by invisible populations

Health Disparities

Print

Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.[1]

https://www.cdc.gov/healthyyouth/disparities/index.htm#:~:text=Health%20disparities%20are%20preventable%20differences,youth%20health%20risk%20behaviors%20persist.

THE CASE

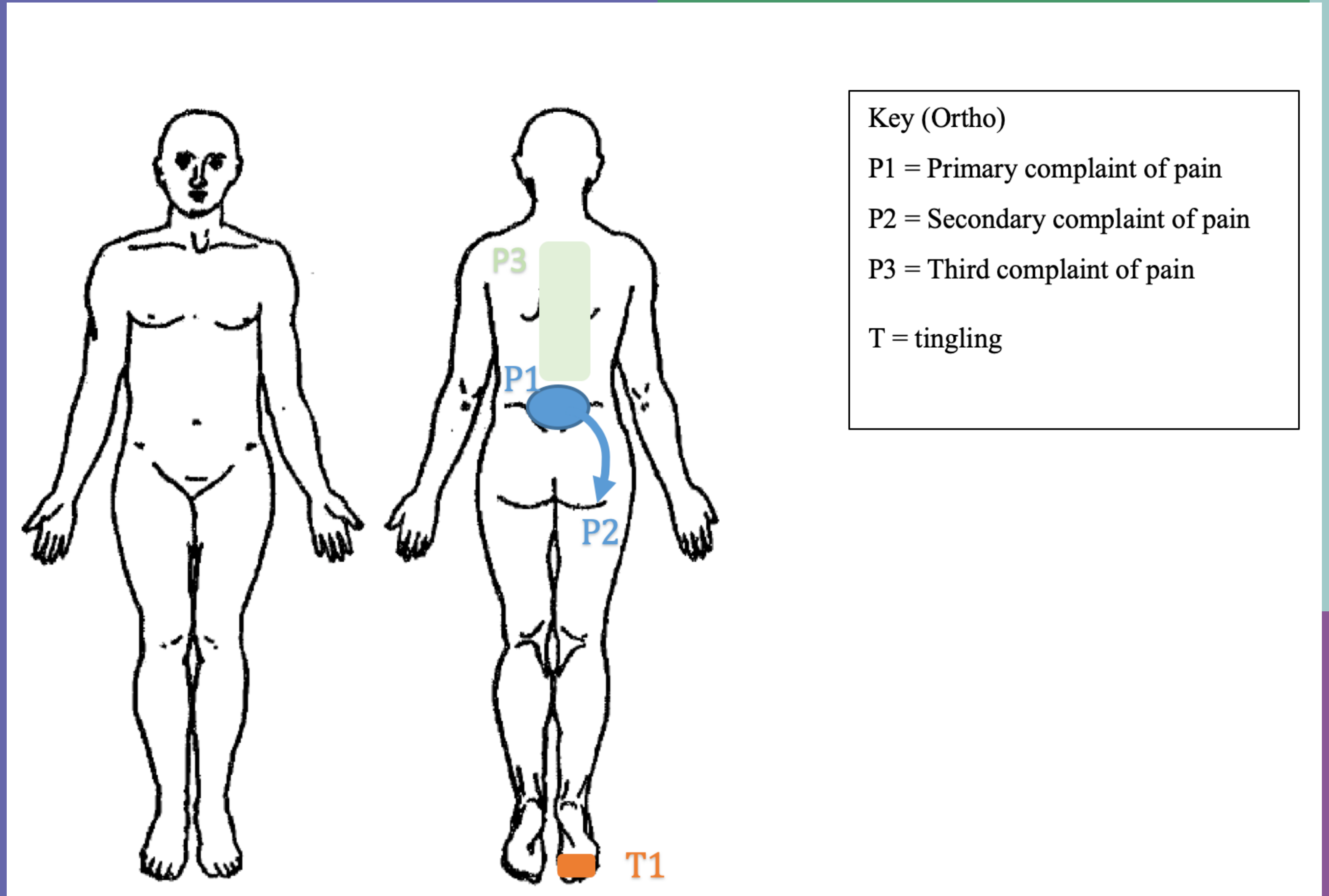
*completed a high-school education; partially completed technical school

*married with three children under the age 12

*radiographic findings indicated stage 1 spondylolisthesis

*a subsequent MRI had no further findings

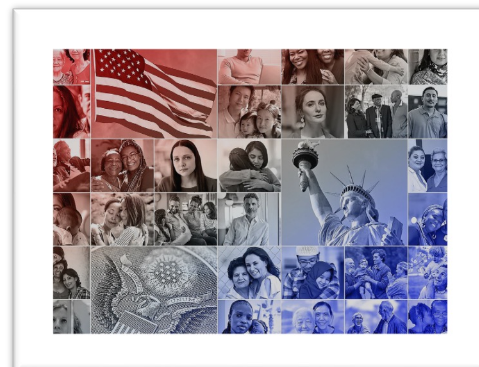
*EMG testing is negative



Why are some populations “invisible?”

What is the impact in chronic health conditions?

Marginalization



https://www.mnpsych.org/index.php?option=com_dailyplanetblog&view=entry&category=division%20news&id=71:marginalized-populations

- Marginalization was defined by Hall et al. in 1994 as 'the process through which persons are peripheralized based on their identities, associations, experiences, and environment' (Hall et al., 1994, p. 25). - Systematically excluded
- Intersectionality -- posits that multiple marginalities are mutually inclusive and must be conceptualized together (Crenshaw 1989)
- -- the intersectional effects are greater than the sum of those individual (Crenshaw, 1989)

...In chronic health conditions

- Social role constriction
- Delegitimization & disconfirming of the chronic illness experience
- Limited access to health care
- Increased risk for vulnerability and worse health outcomes

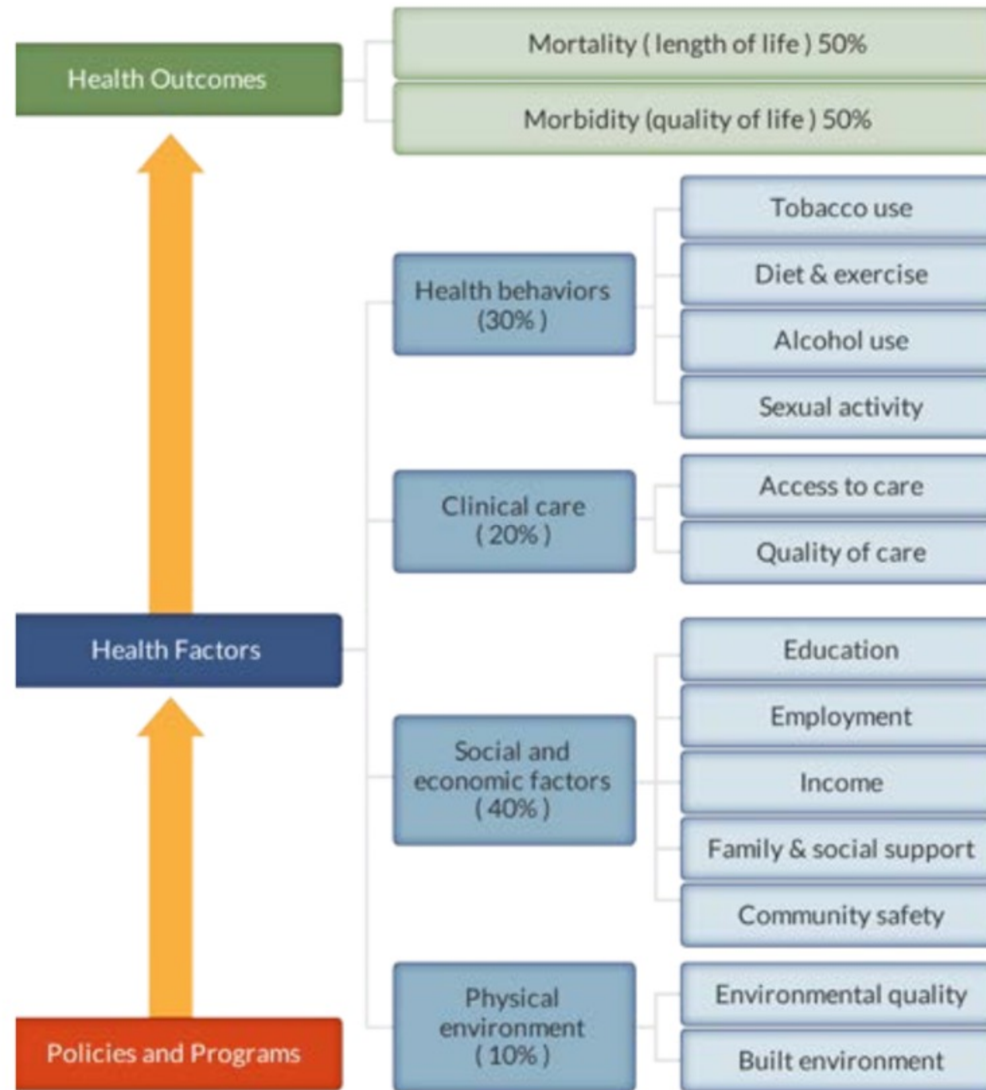
Baah FO, Teitelman AM, Riegel B. Marginalization: Conceptualizing patient vulnerabilities in the framework of social determinants of health – an integrative review. *Nursing Inquiry.* 2019:e12267. **doi.org/10.1111/nin.12268**

“Policy reflects the values of its time.”

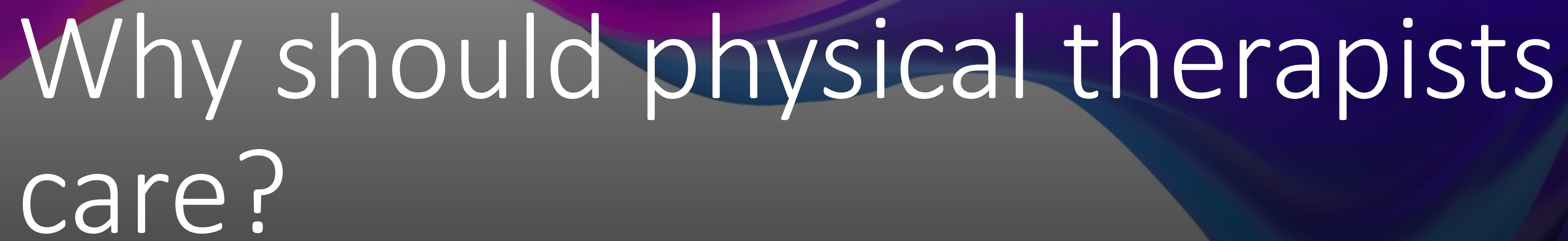
Daniel E. Dawes
The Political Determinants of Health

Social Determinants of Health

"the conditions in which people are born, grow, work, live, and age, and the wider set of ***forces and systems*** shaping the conditions of daily life." -WHO



County Health Rankings model ©2012 UWPHI



Why should physical therapists care?

And what can else should be included in our screening?

Principle #8: *Physical therapists shall participate in efforts to meet the health needs of people locally, nationally, or globally.*
(Core Value: Social Responsibility)

8A. Physical therapists shall provide pro bono physical therapy services or support organizations that meet the health needs of people who are economically disadvantaged, uninsured, and underinsured.
8B. Physical therapists shall advocate to reduce health disparities and health care inequities, improve access to health care services, and address the health, wellness, and preventive health care needs of people.
8C. Physical therapists shall be responsible stewards of health care resources and shall avoid overutilization or underutilization of physical therapy services.
8D. Physical therapists shall educate members of the public about the benefits of physical therapy and the unique role of the physical therapist.

Global perspectives on health

Universal Declaration of Human Rights – 1966

- "The right to health is a cardinal social and economic right" so that all can enjoy the "highest attainable standards of physical and mental health"

Contemporary medical ethics

- Nonmaleficence
- Beneficence
- Autonomy
- Justice
- Dignity
- Truth / honesty

Tow
Neu
Pai

Joanna
Department
E-mail: jke

rtmann
obe. Cha

Kempner J. Chapter Six - Towards a Socially Just Neuroethics of Inequalities in Pain Treatment. In: Buchman DZ, Davis KD, editors. Developments in Neuroethics and Bioethics. 1: Academic Press; 2018. p. 105-25.

DECLARATION OF ALMA-ATA

Primary health care:

1. reflects and evolves from the economic conditions and sociocultural and political characteristics of the country and its communities and is based on the application of the relevant results of social, biomedical, and health-services research and public-health experience;
2. addresses the main health problems in the community, providing promotive, preventive, curative, and rehabilitative services accordingly;

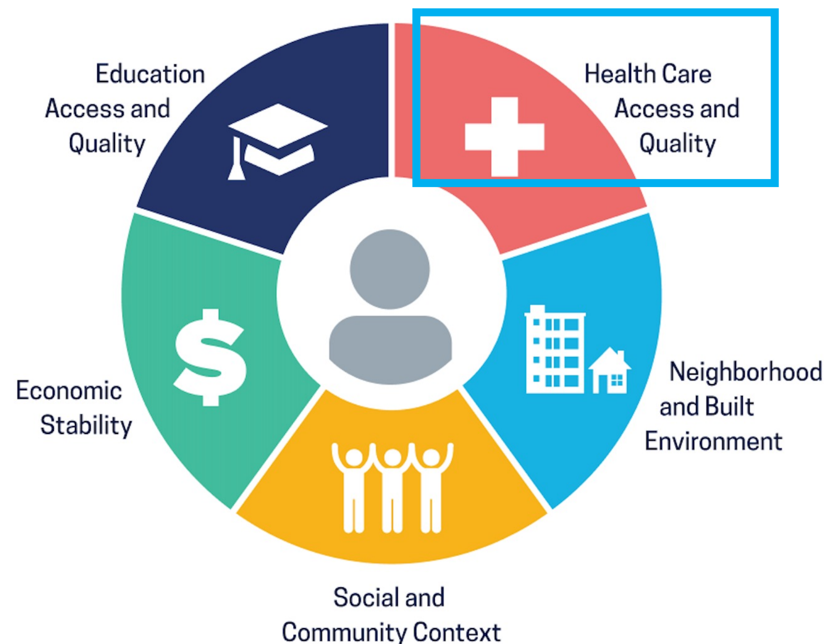
or.

The Lancet Nov. 11, 1978, pg. 1040-1041

Vulnerable population - Who are they? Am J Man Care. 2006;12(13):S348-S52

How are health inequities & chronic pain connected?

Immigrant & minority populations



Financial barriers:

Are at greater risk for not having health insurance

(Asanin & Wilson 2008, Elsoughag 2015, Liebert & Amerigner 2013)

Non-financial barriers:

Can experience language differences, stigma & discrimination, lack trust in health care providers and healthcare systems

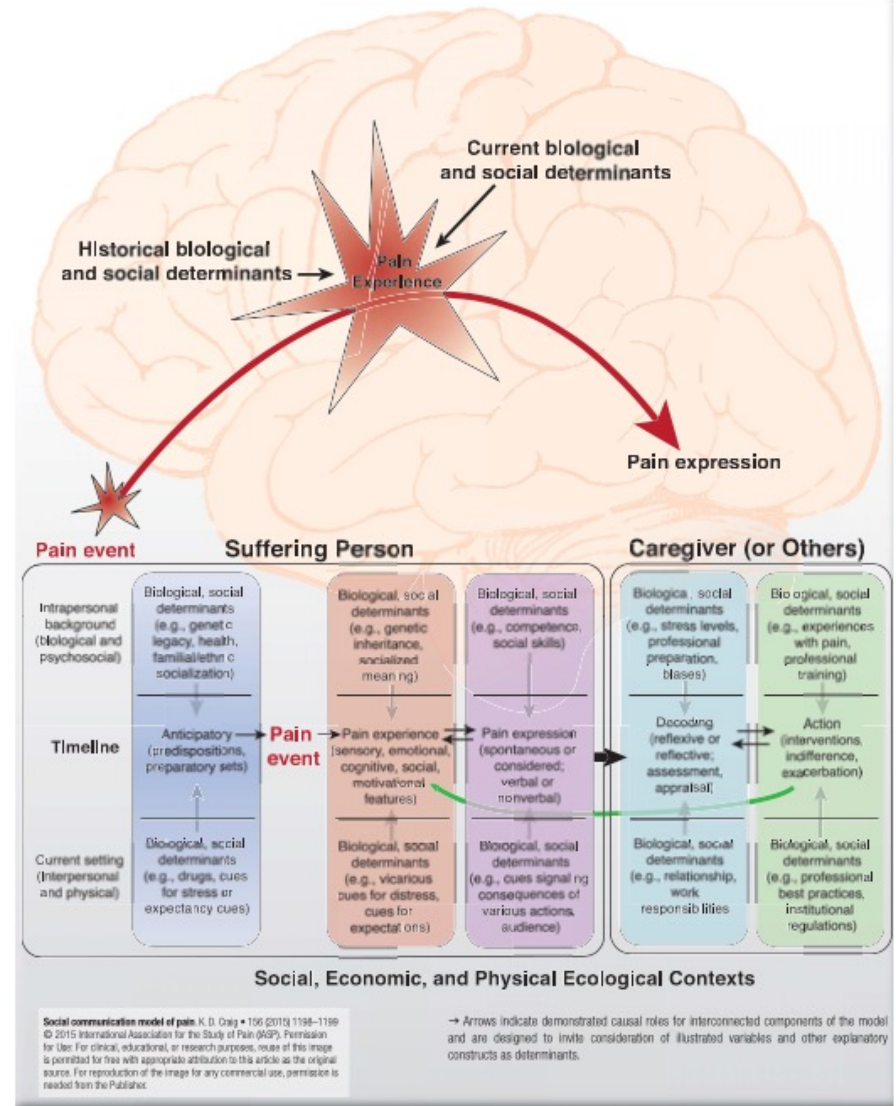
(Edward & Hines-Martin 2015, Kvamme & Ytrehus 2015, Liebert & Amerigner 2013)

Immigrant & minority populations with CMP

At greater risk for under-treatment of pain due to implicitly biased and/or ineffective care (Ezenwa & Fleming 2012, Green 2003, Ringwalt 2015)

Social Communication Model

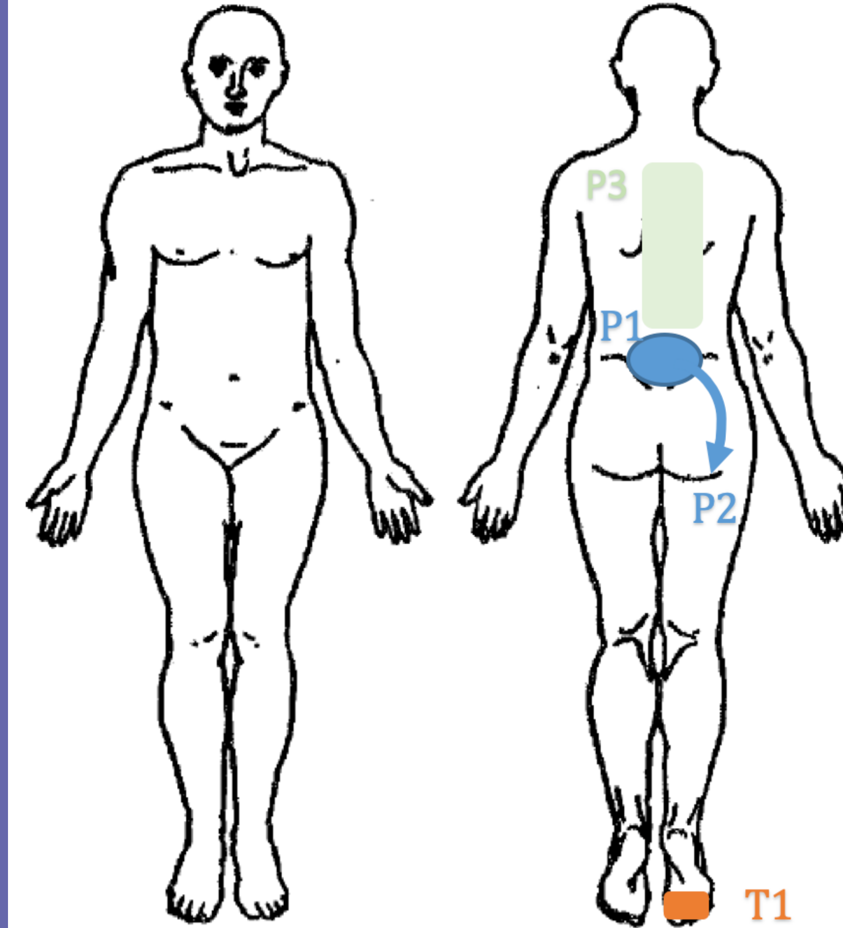
- Communication by the health care provider may have an impact on the pain experience due to neurophysiological processes



Craig KD. Social communication model of pain. *Pain.* 2015:156;1198-1199.

THE CASE

The patient misses several appointments, but never two visits consequently.
He is making gains and your met initial goals.
Your clinic has a very long wait list, and you are feeling pressured to schedule a new evaluation in his typical slot to get more patients in.
Due to staffing issues, you do not have the option to delegate to PTAs, PT aides, or students for the foreseeable future. What is your BEST option for David?



Key (Ortho)

P1 = Primary complaint of pain

P2 = Secondary complaint of pain

P3 = Third complaint of pain

T = tingling

Candidacy

Health care provider or system determines a patient population is of value to be treated

Koehn S. Negotiating candidacy: ethnic minority seniors' access to care. *Aging & Society.* 2009;29:585—608.

Candidacy (patients)

1) Patients need to determine that medical attention is necessary

2) Patients need to be aware of services that are available

3) Patients needs to appear credible

Koehn S. Negotiating candidacy: ethnic minority seniors' access to care. *Aging & Society.* 2009;29:585—608.

Therapeutic / Working Alliance: Moving beyond patient satisfaction

Lakke and Meerman *Journal of Compassionate Health Care* (2016) 3:1
DOI 10.1186/s40639-016-0018-7

Journal of Compassionate Health Care

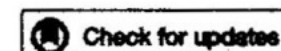
REVIEW Open Access

Does working alliance have an influence on pain and physical functioning in patients with chronic musculoskeletal pain; a systematic review

Sandra E. Lakke* and Sebastiaan Meerman

PHYSIOTHERAPY THEORY AND PRACTICE
2020, VOL. 36, NO. 8, 886–898
https://doi.org/10.1080/09593985.2018.1516015

SYSTEMATIC REVIEW



The impact of therapeutic alliance in physical therapy for chronic musculoskeletal pain: A systematic review of the literature

Meredith Kinney, PT, DPT [a], Jasmine Seider, PT, DPT[b], Amanda Floyd Beaty, PT, DPT[c], Kaitlin Coughlin, PT, DPT[d], Maximilian Dyal, PT, DPT[e], and Derek Clewley, PT, DPT, PhD, OCS, FAAOMPT [f]

[a]Outpatient Physical Therapy Department, BreakThrough Physical Therapy, Wake Forest, NC, USA; [b]Outpatient Physical Therapy Department, Select Physical Therapy, Arlington, VA, USA; [c]Department of Physical Therapy and Occupational Therapy, Adult Ambulatory Division, Duke University Health System, Durham, NC, USA; [d]Outpatient Physical Therapy Department, Back to Work Physical Therapy, Tampa, FL, USA; [e]Outpatient Physical Therapy Department, Korunda Medical LLC, Naples, FL, USA; [f]Doctor of Physical Therapy Division, Department of Orthopaedics, Duke University, Durham, NC, USA

Babatunde *et al. BMC Health Services Research* (2017) 17:375
DOI 10.1186/s12913-017-2311-3

BMC Health Services Research

RESEARCH ARTICLE Open Access

Characteristics of therapeutic alliance in musculoskeletal physiotherapy and occupational therapy practice: a scoping review of the literature

Folarin Babatunde[1*], Joy MacDermid[1,2,3] and Norma MacIntyre[1]

STRUCTURAL RACISM AND HEALTH INEQUITIES

Old Issues, New Directions[1]

Gilbert C. Gee
School of Public Health, University of California, Los Angeles

Chandra L. Ford
School of Public Health, University of California, Los Angeles

FitzGerald and Hurst *BMC Medical Ethics* (2017) 18:19
DOI 10.1186/s12910-017-0179-8

BMC Medical Ethics

RESEARCH ARTICLE Open Access

Implicit bias in healthcare professionals: a systematic review

Chloë FitzGerald* and Samia Hurst

Clin Orthop Relat Res (2011) 469:1871–1877
DOI 10.1007/s11999-010-1759-9

SYMPOSIUM: AAOS/ORS/ABJS MUSCULOSKELETAL HEALTHCARE DISPARITIES RESEARCH SYMPOSIUM

Defining Gender Disparities in Pain Management

Linda LeResche ScD

FRAMING HEALTH MATTERS

Stigma as a Fundamental Cause of Population Health Inequalities

Mark L. Hatzenbuehler, PhD, Jo C. Phelan, PhD, and Bruce G. Link, PhD

Bodies of research pertaining to specific stigmatized statuses have typically developed in separate domains and have focused on single outcomes at 1 level of analysis, thereby obscuring the full significance of stigma as a fundamental driver of population health. Here we provide illustrative evidence on the health consequences of stigma and present a conceptual framework describing the psychological and structural pathways through which stigma influences health. Because of its pervasiveness, its disruption of multiple life domains (e.g., resources, social relationships, and coping behaviors), and its corrosive impact on the health of populations, stigma should be considered alongside the other major organizing concepts for research on social determinants of population health. (*Am J Public Health.* 2013;103:813–821. doi:10.2105/AJPH.2012.301069)

out."[9(p370)] However, because the overall stigma process incorporates several other elements, such as labeling and stereotyping, the stigma concept is broader than discrimination.[10]

STIGMA AS A FUNDAMENTAL CAUSE

Fundamental cause theory proposes that some social factors or circumstances remain persistently associated with health inequalities over time despite dramatic changes in diseases, risk factors, and health interventions. Inequality persists because fundamental causes

SYSTEMATIC REVIEW

Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review

William J. Hall, PhD, Mimi V. Chapman, PhD, Kent M. Lee, MS, Yesenia M. Merino, MPH, Tainayah W. Thomas, MPH, B. Keith Payne, PhD, Eugenia Eng, DrPH, Steven H. Day, MCP, and Tamera Coyne-Beasley, MD

PAIN MEDICINE
Volume 4 • Number 3 • 2003

REVIEW ARTICLE

The Unequal Burden of Pain: Confronting Racial and Ethnic Disparities in Pain

Carmen R. Green, MD,[a] Karen O. Anderson, PhD,[b] Tamara A. Baker, PhD,[c]
Lisa C. Campbell, PhD,[d] Sheila Decker, PhD,[e] Roger B. Fillingim, PhD,[f]
Donna A. Kaloukalani, MD, MPH,[g] Kathyrn E. Lasch, PhD,[h] Cynthia Myers, PhD,[i]
Raymond C. Tait, PhD,[j] Knox H. Todd, MD, MPH,[k] and April H. Vallerand, PhD, RN[l]

[a]University of Michigan Medical School, Ann Arbor, Michigan; [b]M.D. Anderson Cancer Center Pain Research Group, Houston, Texas; [c]University of Michigan, School of Public Health, Ann Arbor, Michigan; [d]Duke University Medical Center, Durham, North Carolina; [e]University of Iowa School of Nursing, Iowa City, Iowa; [f]University of Florida College of Dentistry, Gainesville, Florida; [g]Washington University, St. Louis, Missouri; [h]New England Medical Center, Boston, Massachusetts; [i]University of California Los Angeles, Los Angeles, California; [j]St. Louis University School of Medicine, St. Louis, Missouri; [k]Emory University, Rollins School of Public Health, Atlanta, Georgia; and [l]Wayne State University College of Nursing, Detroit, Michigan

Downloaded from http:

Stigma and implicit biases demonstrated and are suggested to contribute to health inequities

Meta-ethnography

Chronosystem

Patients reported the journey with CMP as a "quest" with "turning points thoughts care." Both patients and HCPs noted that previous "experiences with care" influenced their current clinical conversations. HCPs noted the "challenges of the practice context" could influence their management decisions.

Macrosystem / Policy / Enabling Environment

Many patients reported "stigmatization" and experienced "medical exclusion," and discrimination were perceived based on gender, race/ethnicity, class, immigration status, and/or drug addition. Women reported "working to be a credible patient" and recognized "the power of gender."

Mesosystem / Community

Intersection of gender, class, ethnoculture or race, and migration status influenced access to work, disability, social services/judicial systems. These relationships were supported, or not supported, by the clinical conversation in CMP.

Individual

Patients trying to "make sense of the pain" as CMP is "invisible" and an illness with "low status" that resulted in a "spoiled identity." Patients reported "unmet expectation" for a "credible consultation" and were "stigmatized." Patients also had positive experiences that were either "turning points through care."

HCPs noted patients were in "search of meaning" and had "ideal images of a successful patient." HCPs also reported they thought patients lacked "buy-in" and stigmatized patients. Some reported they were under-prepared to treat to CMP. Often HCPs relied on "biomedical beliefs."

Clinical Conversation

Microsystem / Interpersonal

"Pain and strength to bear pain as issues of faith." Family was one of the "reasons for enduring the pain." Positive health systems provided "restitution" and were a "turning point to restoring a self." Conversely, for some, health was "always a reacquaintance process" with "so many hoops" that patients had to "just keep plugging."

Exosystem / Organization

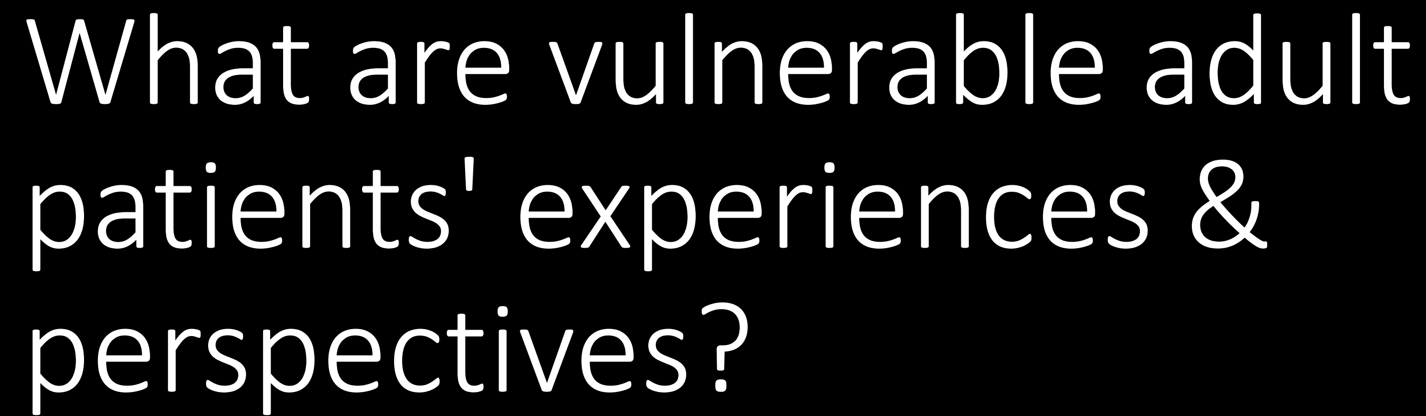
"Information sources" included extended family and their physician in country of origin. Social services was important for disability claims. "Access to rehab" was not a given and depended on "the power of the diagnosis."

Emerson AJ, Steiner M, Einhorn L, Naze GS, Baxter BD. Clinical conversations in the management of chronic musculoskeletal pain in vulnerable patient populations: A meta-ethnography. *Disabil Rehab.* 2022 epublished 00(0);1-26. doi.org/10.1080/09638288.2022.2130447

www.free-powerpoint-templates-design.com

Exploring the impact of sociopolitical factors and social determinants of health on the clinical conversation in chronic musculoskeletal pain

Alicia J. Emerson, PT, DPT, PhD, MS
Ramakrishnan Mani, DAc, BPhty, MPhty, PGCert, PhD
G. David Baxter, BSc(Hons), DPhil, MBA, FCSP


What are vulnerable adult patients' experiences & perspectives?

Communication "axioms"

Journal of Public Health Research 2013; volume 2:e23

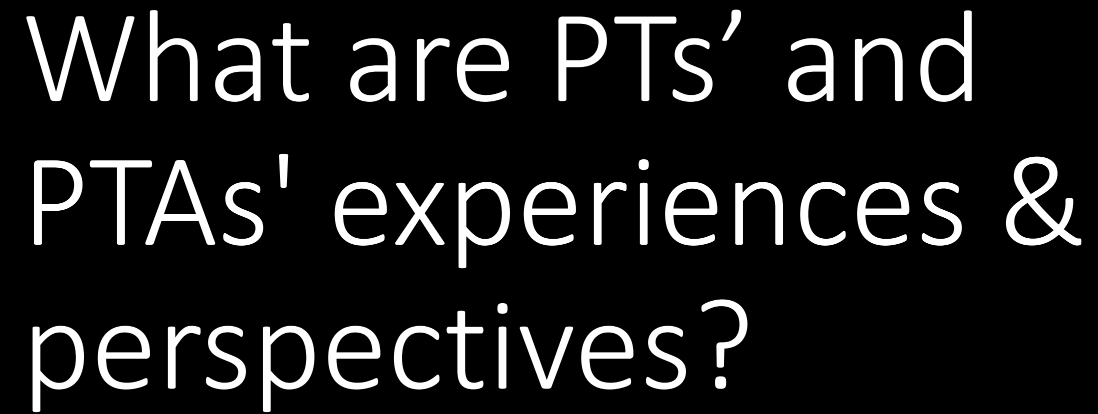
Review

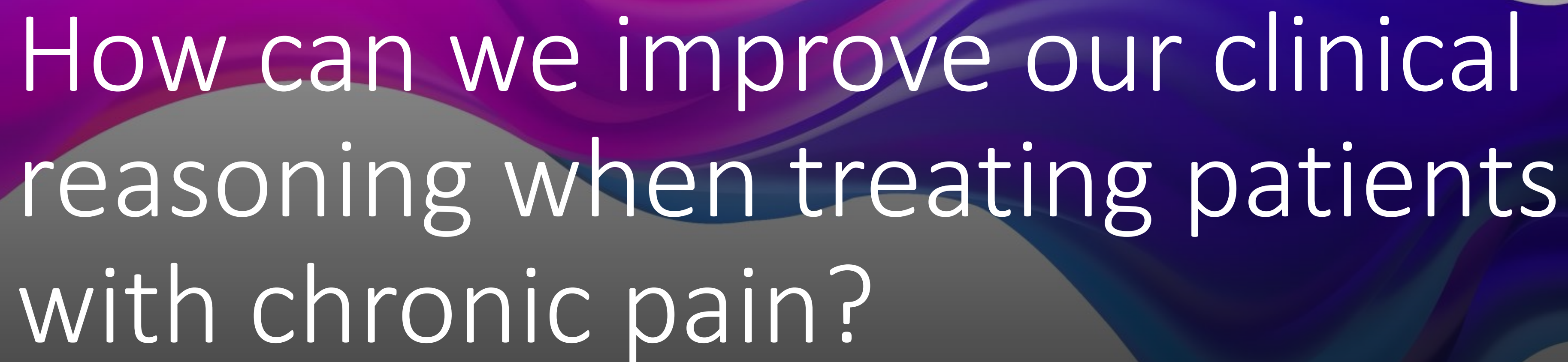
(Re)Introducing communication competence to the health professions

Brian H. Spitzberg
School of Communication, San Diego State University, San Diego, CA, USA

Communication is contextual

Competence is an ***<u>inference</u>*** by the receiver of the information (not the person giving the information)


What are PTs’ and PTAs' experiences & perspectives?

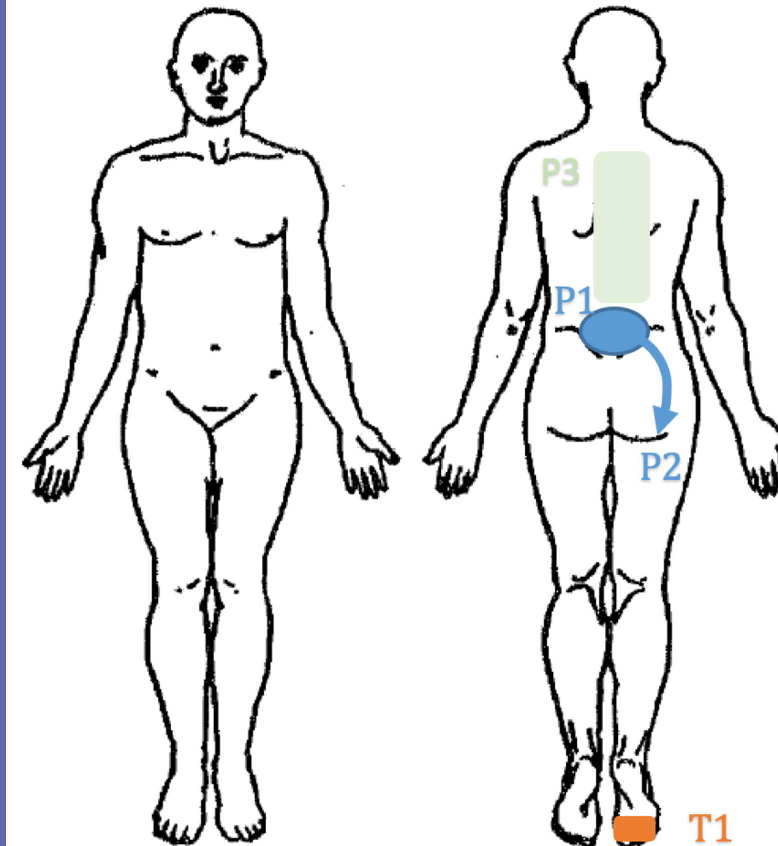


How can we improve our clinical reasoning when treating patients with chronic pain?

In an effort to improve inequitable outcomes …

UNDERSTANDING THE CASE IN THE CONTEXT OF SDOH

What can you do tomorrow in the clinic?



Key (Ortho)

P1 = Primary complaint of pain

P2 = Secondary complaint of pain

P3 = Third complaint of pain

T = tingling

Record and Categorize

Blood Pressure Categories

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120 – 129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130 – 139	or	80 – 89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

Physiother Theory Pract. 2019 Sep;35(9):843-850. doi: 10.1080/09593985.2018.1458355. Epub 2018 Mar 29.

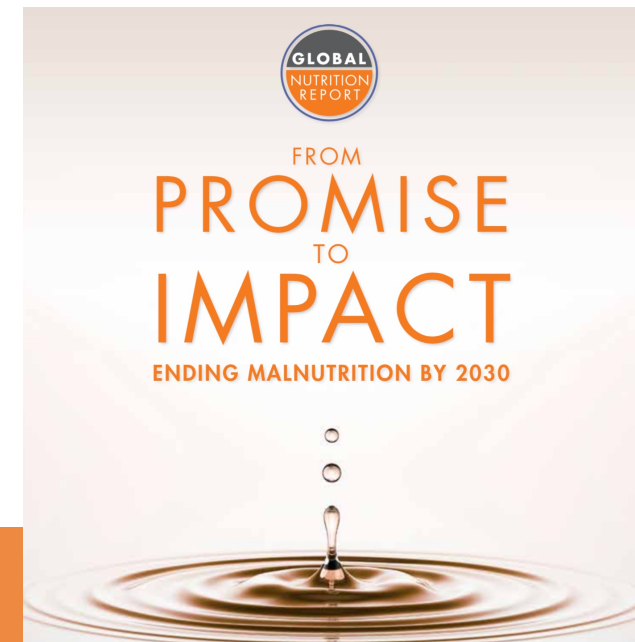
Outpatient physical therapy cardiovascular assessment: Physical therapist perspective and experience.

Albarrati AM PT, PhD[1].

Author information

- 1 in 4 PTs monitor cardiovascular indices
- Most PTs: Monitoring cardiovascular indices was “not their job” and “did not add value” to their treatment plan
- 20% of PTs reported that patients experienced a cardiovascular event with exercise

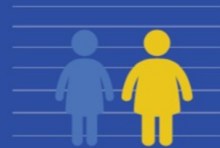
Increase obesity and malnutrition- consider if your area has food deserts



MALNUTRITION IN ALL ITS FORMS

CHILD STUNTING
Low height for age

CHILD WASTING
Low weight for height



CHILD OVERWEIGHT
High weight for height

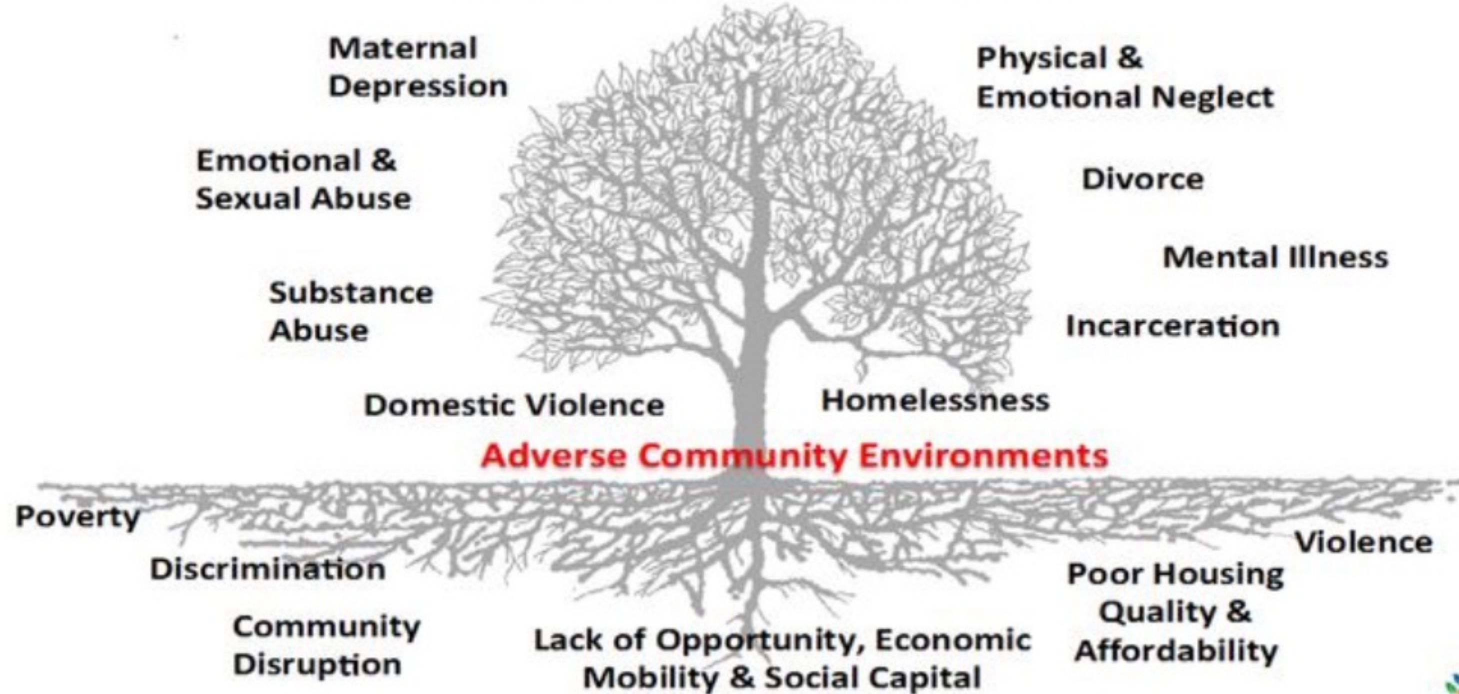
ADULT OVERWEIGHT
Carrying excess body fat with a body mass index ≥ 25

MICRONUTRIENT DEFICIENCY
Iron, folic acid, vitamin A, zinc, iodine below healthy thresholds

ADULT OBESITY
Carrying excess body fat with a body mass index ≥ 30

NONCOMMUNICABLE DISEASES
Diabetes, heart disease, and some cancers

The Pair of ACEs

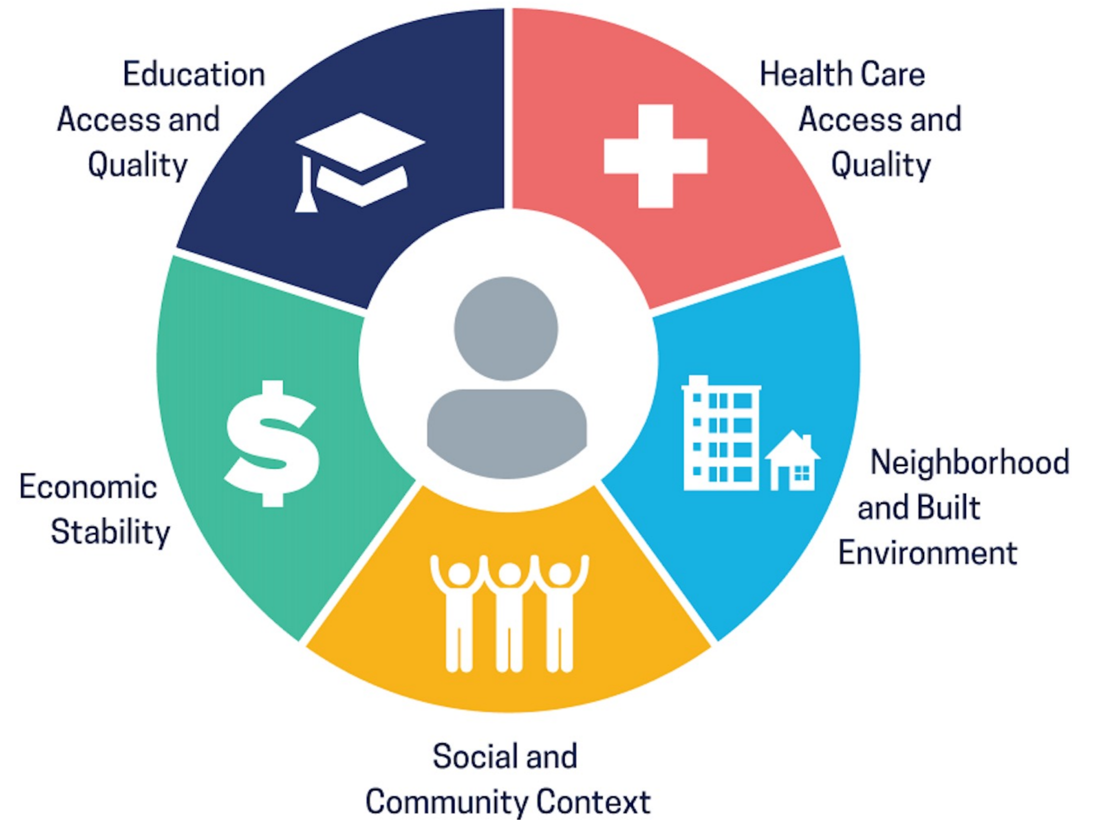


Milken Institute School of Public Health
THE GEORGE WASHINGTON UNIVERSITY

Ellis W., Dietz W. BCR Framework *Academic Peds* (2017)

Tomorrow--
Use your intake form to inform

***Key metrics on SDOH are often overlooked*



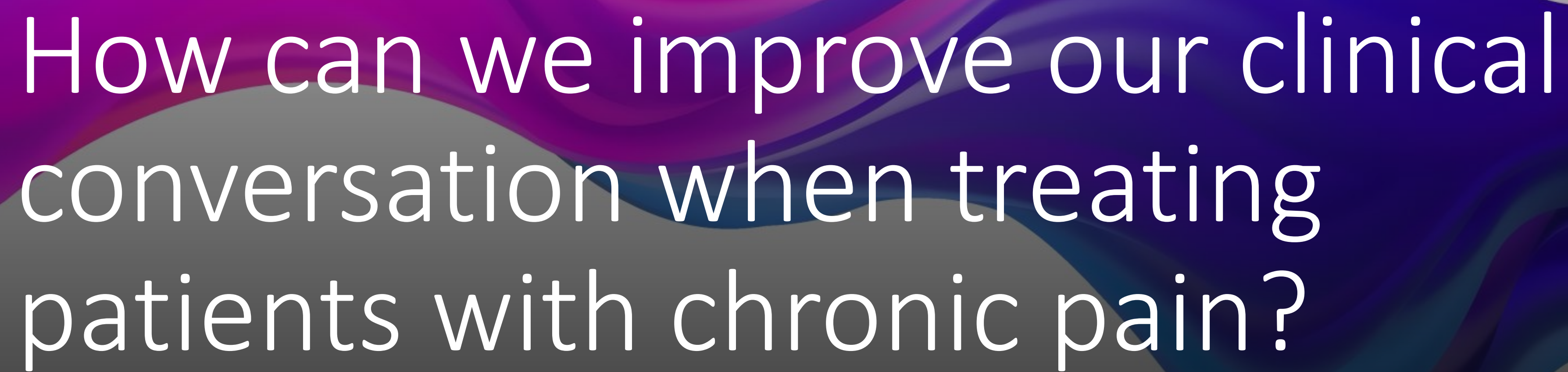
SDoH Screening: Three Quick Questions!

Have there been times in the last 12 months when you and your family did not have the food needed or the resources necessary to purchase food?

Do you feel you have good support?

Do you often put off going to visit a healthcare provider because of distance or transportation?

https://www.aafp.org/dam/AAFP/documents/patient_care/everyone_project/hops19-physician-guide-sdoh.pdf



How can we improve our clinical conversation when treating patients with chronic pain?

In an effort to improve inequitable outcomes …

Narrative Reasoning

- Requires active listening
- Suspends judgment
- Different from diagnostic reasoning (clinical pattern)

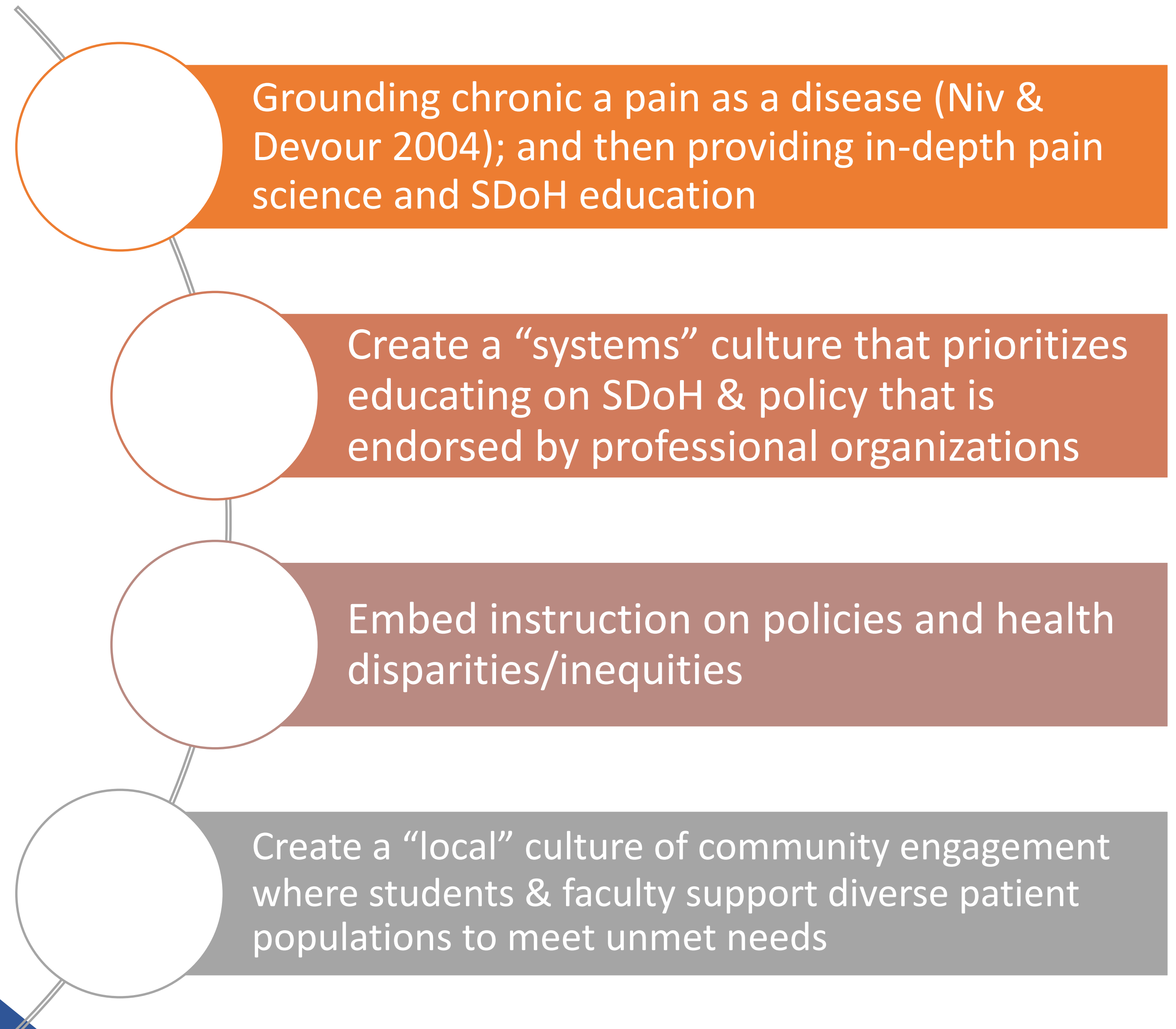
Jones and Rivett. *Clinical Reasoning for Manual Therapists.1st ed.* Ch 1

“Imagine a day in the life” – (Burgess 2004)

Ask the patients on key factors such as empathy and perceived discrimination

- Jefferson Scale of Patient’s Perceptions of Physician Empathy (Hojat 2017)
- Equity-oriented Health Care Scale (The Univ. of British Columbia 2022)
- Discrimination in Medical Settings Scale (Peek 2011)

Recommendations: Capacity building in entry-level & post-professional education



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