

The Summer of Pain

COVID, politics, and racial discrimination,
and pain in the population



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What is pain?

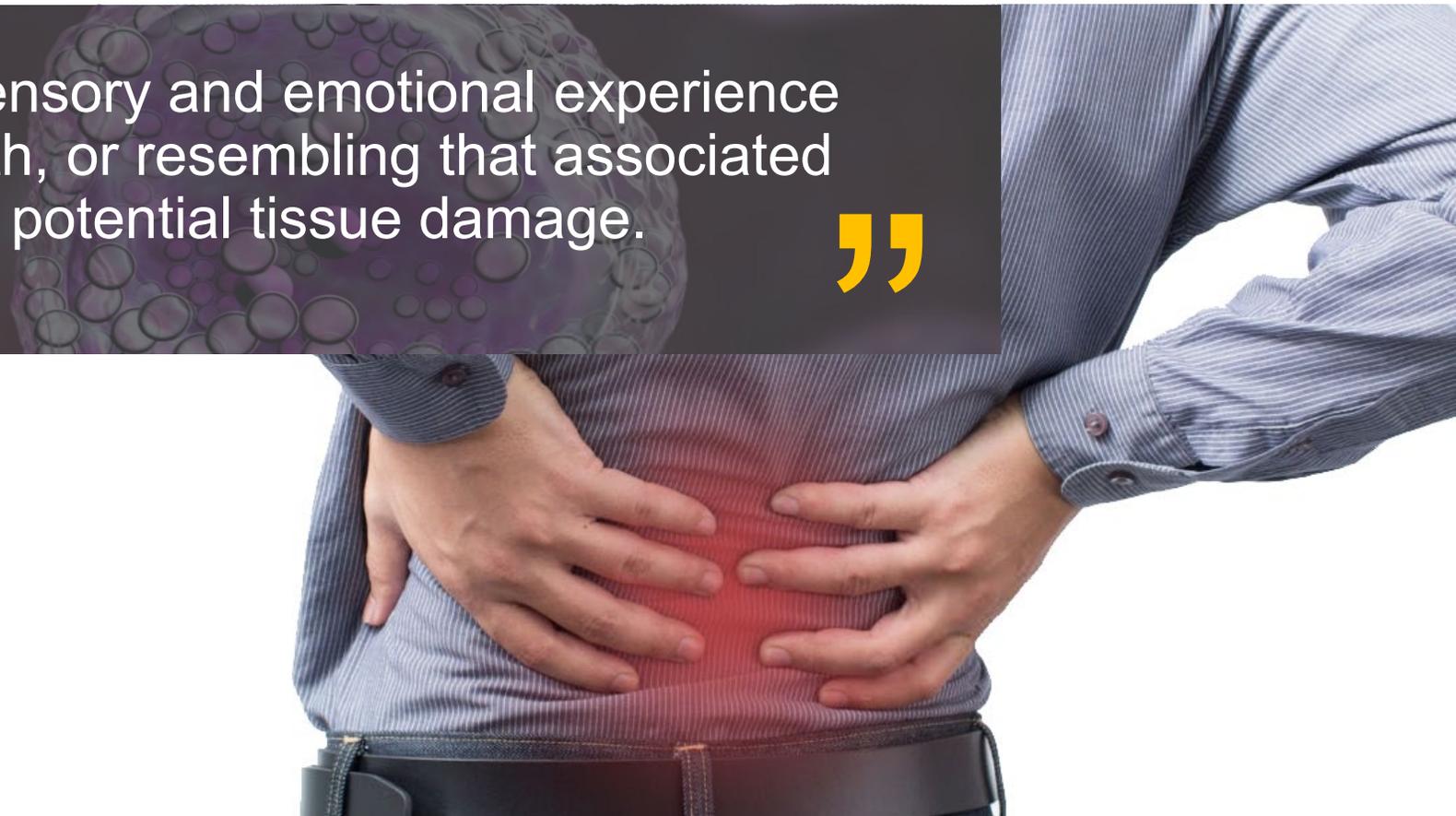
Definition

“ Unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage. ”

(IASP 2020)

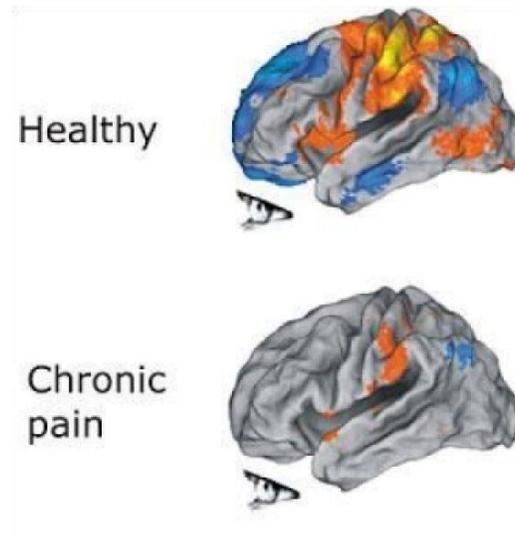
Types

- Acute
- **Chronic**



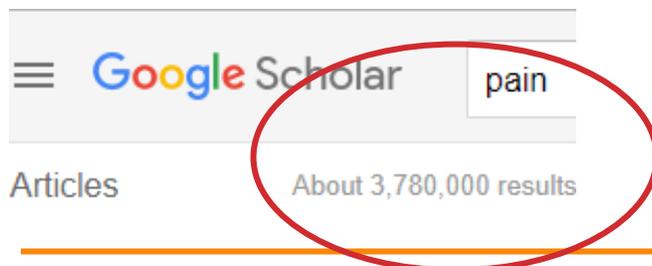
Acute pain vs chronic pain

- Superficially, based on time horizon: less or more than 3 months
- **Fundamentally, different phenomena**
 - Acute: linked to injury or illness (inflammation)
 - Chronic: persists past healing, or in absence of evident injury/illness



Chronic pain burden

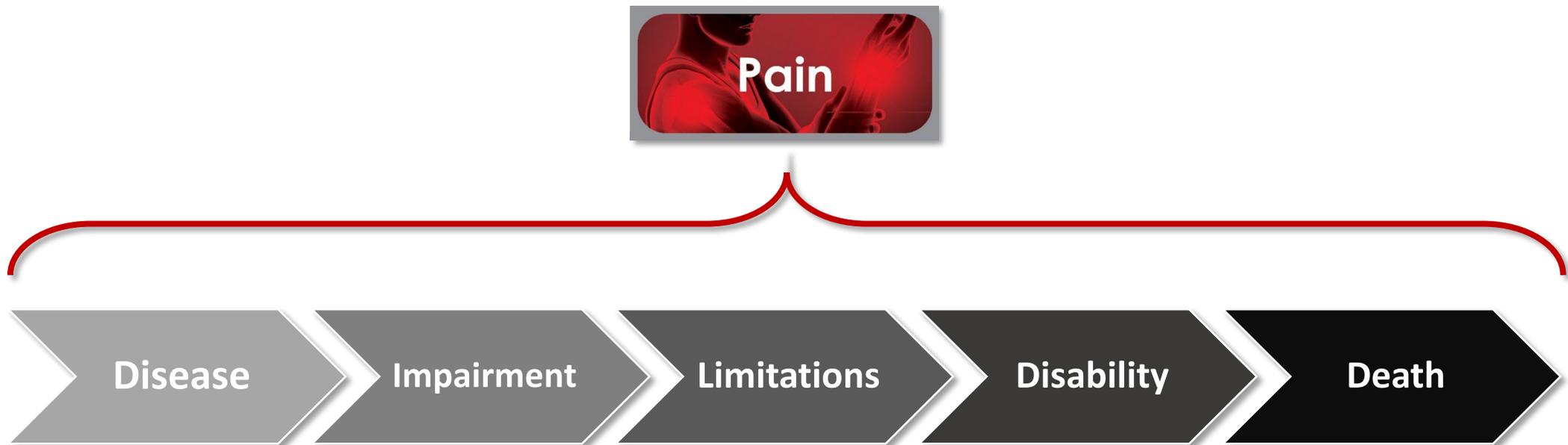
- **Ubiquitous:** Affects more than diabetes, HD, cancer combined.
- **Universal:** Affects all groups in population
- **Impactful:** Most common reason for health care use (**80%**), for work disability
- **Costly:** > \$600,000,000,000 USD annually
- **Studied extensively:** primarily clinical



Pain inextricably linked with other health dimensions

- Correlated with physical and mental conditions
- Intertwined through the disablement process

Disablement process



Neglected in population health despite centrality of social factors

Since 2000, articles on pain*

- 3 in Social Science and Medicine
- 2 in JHSB
- 1 in Demography

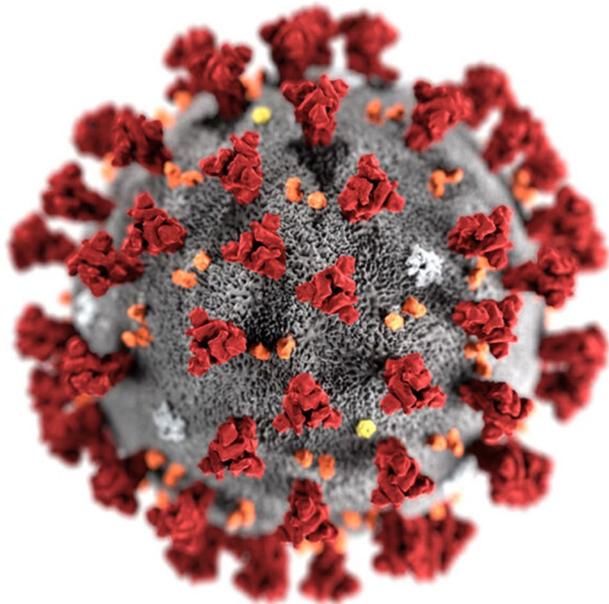
*All databases, "pain" in title





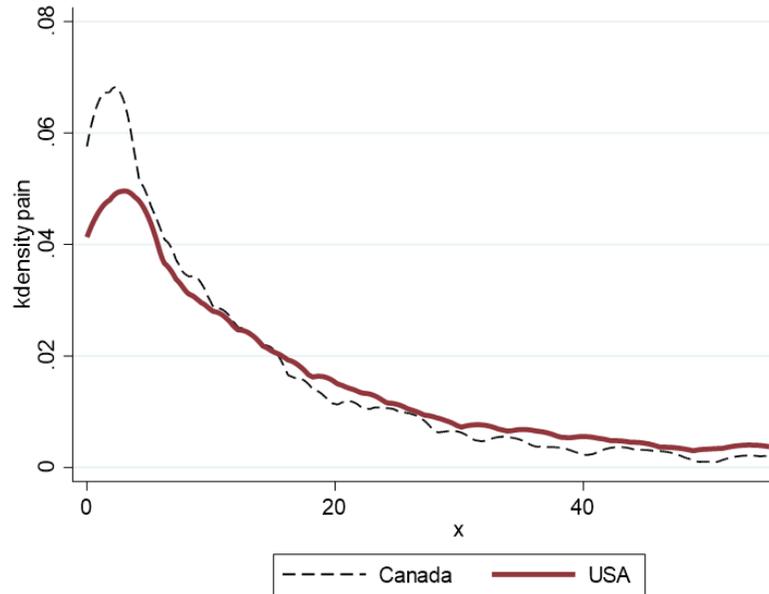
RQ: Are COVID, politics, and racial reckoning related to pain?

- COVID: health and economic concerns
- Election/political stress
- Racial reckoning (BLM)



Pain measurement in COVID Resilience & Recovery data

Figure 1. Distribution of pain scores in US and Canada.



Pain interference	Frequency of pain in past month						Total
	Never	Rarely	Sometimes	Often	Almost al	Always	
Never has pain	650	0	0	0	0	0	650
Pain didn't interfere	0	264	100	26	3	5	398
2	0	212	136	31	7	8	394
3	0	167	216	46	14	1	444
4	0	81	182	59	15	7	344
5	0	38	125	51	8	5	227
6	0	52	178	81	36	8	355
7	0	36	144	103	50	24	357
8	0	38	104	115	67	40	364
9	0	32	66	71	62	56	287
10	0	13	20	19	29	37	118
Completely interfered	0	13	27	26	30	78	174
Total	650	946	1,298	628	321	269	4,112

Estimated weighted, MI logistic models of dichotomized pain (10+)



What predicts higher odds of (moderate or worse) pain?

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Demographics	25-64 US-born South Has children	25-64 US-born not Black South Has children	25-64 US-born not Black South Has children	25-64 US-born South Has children	25-64 US-born South Has children	US-born South Has children	US-born not Black South Has children
SES		Lower income Disabled					Lower income "Some college" Disabled
Discrimination			Experienced				Experienced
Political							
Psychosocial					Lonely Life not good Low religiosity		Lonely Life not good
COVID						Had COVID Risk to family Financial worry, hardship	Had COVID Risk to family
Model fit (R sq)	2.6%	6.8%	3.1%	2.6%	6.9%	8.5%	14.4%

Key correlates of pain -- summary

- Immigrants and Blacks report less & Southerners more pain
- For SES, lower income was linked to more pain
- Net of these known factors, the following also mattered:
 - Psychosocial characteristics (loneliness, life dissatisfaction)
 - Discrimination (race/ethnic or any)
 - COVID, having it or health & economic worries
- No political (stressors) were salient



An anatomical illustration of a human torso and shoulder, rendered in a dark blue, semi-transparent style. A glowing orange-red circular graphic is overlaid on the left side of the image, partially obscuring the torso. The background is dark, and the overall aesthetic is clinical and somber.

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