

Battered Women and Children: Research, Resilience and Models of Response

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Two things---

1. Observations and research on resilience with abused women and their children
2. New findings on the health effects of intimate partner violence (IPV)

Of necessity my remarks will be brief!

But first--

A story

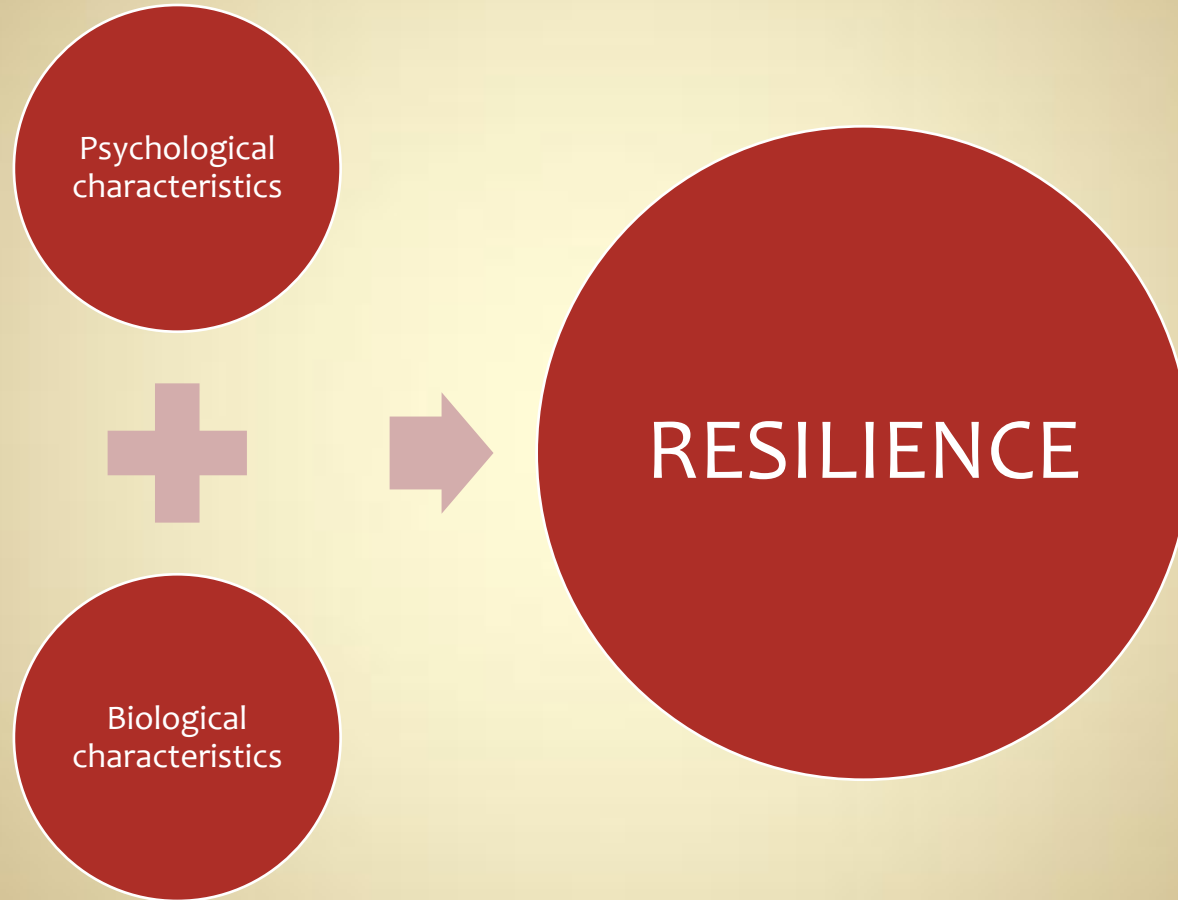
Support of others

- “...they always encouraged me & said that I could do whatever I wanted to do & that I would be somebody. So this was always being affirmed all of the time by so many people that it was something I accepted and I expected. It got to the point where I expected it & there was no less.”
- “...but my mother thought we were perfect & we believed her... she thought we were great so I think I thought I was great.”

RESILIENCE

- Exposure to adversity or trauma does not necessarily lead to impairment and the development of psychopathology!
- Process of adapting well in the face of adversity or trauma (Yehuda, Flory, Southwick, & Charney, 2006)
 - **Resistance**—factors that contribute to relative imperviousness to deleterious effects of stress
 - **Recovery**—an individual's ability to mend or restore psychological/physical damage as a result of stress

CONCEPTUALIZATION OF RESILIENCE



Known and Suspected Consequences Of Lifetime Experiences of Violence and Abuse



- › Summary
- › Full Text (HTML)
- › Full Text (PDF)
- › Supporting Online Material

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against women—a concrete manifestation of inequality between the sexes. Policies to prevent this violence should be implemented as part of the agendas for equality, development, public health, and human rights (2). Although statements and international declarations have called for the eradication of violence against women (3, 4), many agencies, governments, and policy-makers view it as a relatively minor social problem.

There is a growing body of evidence from research that suggests that violence against women is highly prevalent, with an estimated one in three women globally experiencing some form of victimization in childhood, adolescence, or adulthood (5-10). This violence has a direct economic impact along with the human and emotional costs. A study in the USA estimated the costs of intimate partner rape, physical assault and stalking as exceeding \$5.8 billion each year, nearly

Chronic Pain in Abused Women

Chronic pain common complaint

- 48% to 84% of abused women (Campbell, Jones Dienemann, et al., 2002; Sutherland, Bybee, & Sullivan, 2002)

Most common sites

- Headaches (84%), musculoskeletal soreness (81%), back pain (80%) (Sutherland, Bybee, & Sullivan, 2002)
- Frequent c/o abdominal, GU, & GI pain

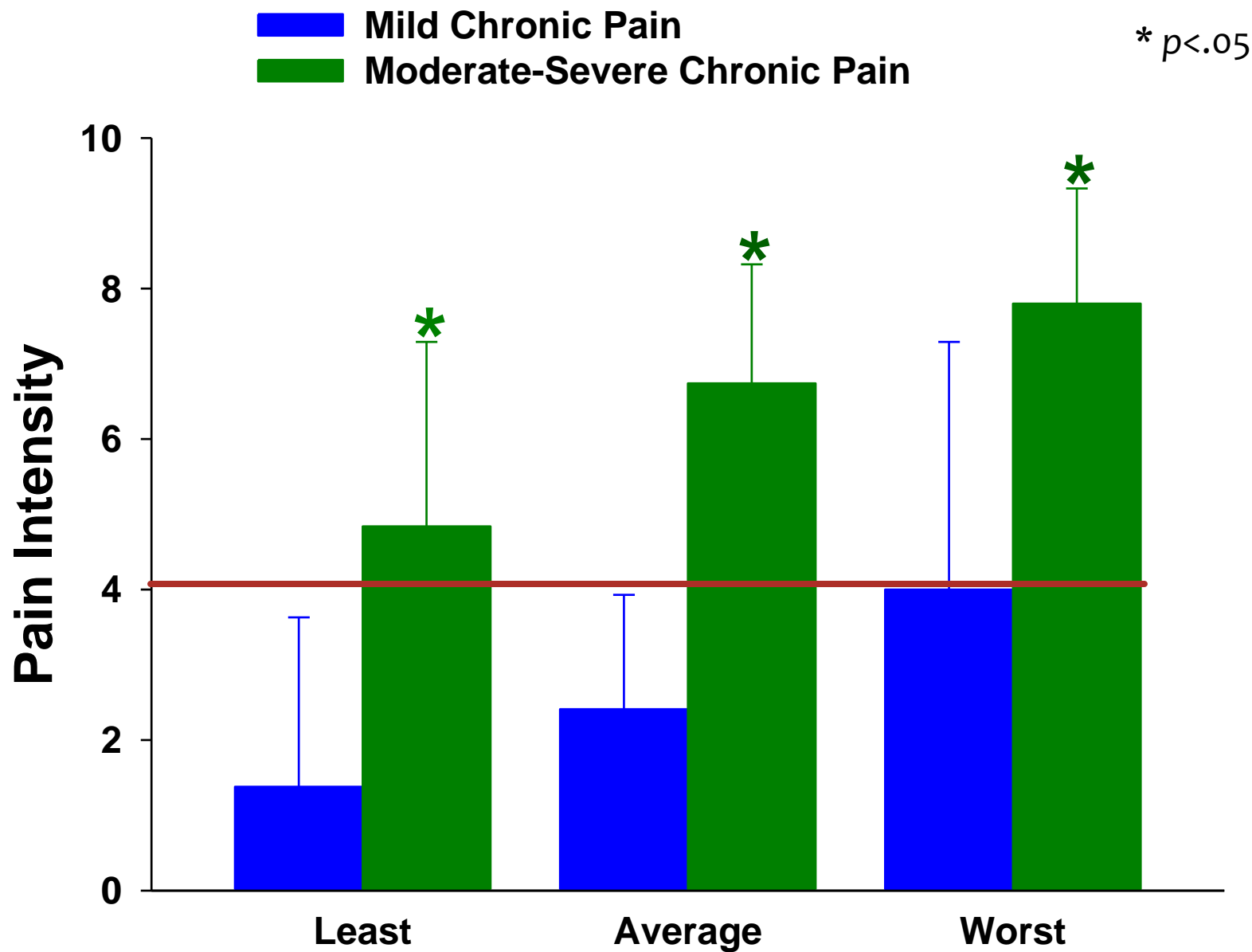
Limitations of research

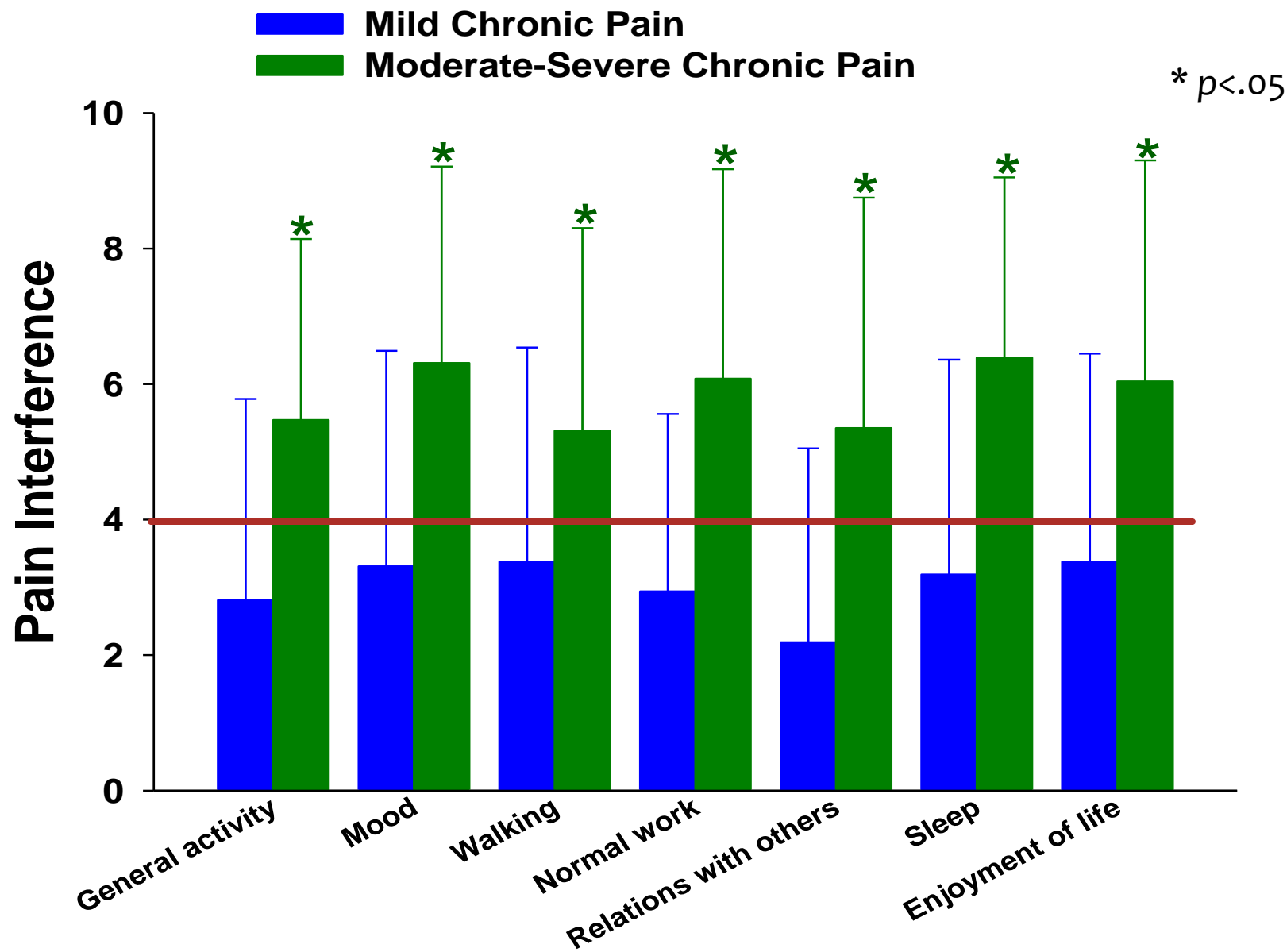
- Specialty clinic or shelter-based samples
- Single-item measures

Results: Chronic pain?

“Throughout our lives most of us have had pain from time to time. Have you had pain that didn’t go away and lasted **3 months or more?**”

65 (77%) = yes





Chronic Pain Characteristics

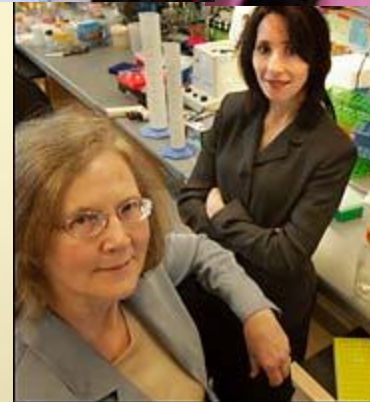
- Average of 5 painful sites
 - Range = 1-21
- >50% participants describes pain as
 - “Miserable”
 - “Exhausting”
 - “Unbearable”

But why?



Chronic stress and aging

- Epel, Blackburn, Lin et al., (2004)
 - Women with chronic stress
 - Hypothesized that stress impacts health by modulating the rate of cellular aging
- Blackburn & colleagues (1992; 1997; 1998; 2001; 2003...)



Telomeres

- DNA-protein complexes that cap chromosomal ends promoting chromosomal stability
- Their length shortens with each cell division & correlates inversely with age
 - Biomarker for biological “age”
- Can be modified by genetic & epigenetic factors
 - Physiological stressors –



A critical minimum telomere length triggers cell senescence

Accumulation of senescent cells attenuates the integrity and normal function of tissues, leading to age-related diseases including chronic inflammation.

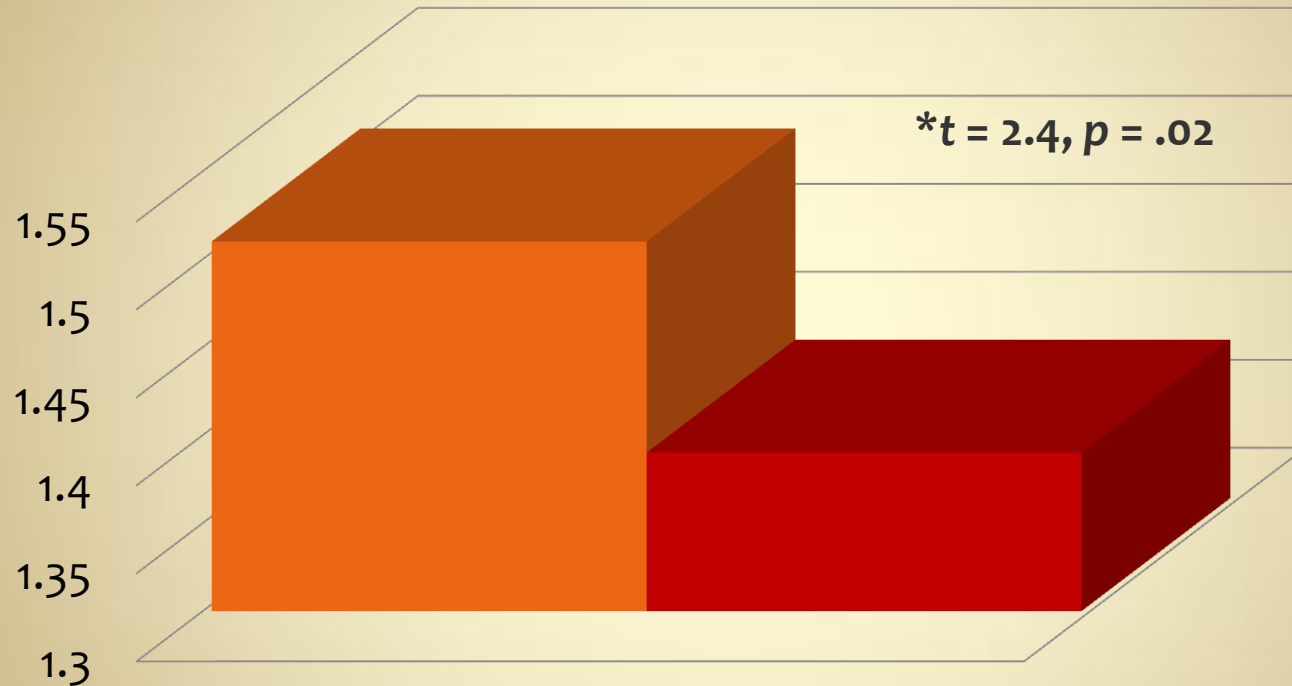
Purpose of this study

- To examine the relationship between mean telomeric DNA length in women who have experienced IPV as one type of chronic stress.
 - Hypothesis: IPV exposure will be associated with shorter telomere length.

Total Sample ($N = 112$)

- Age = 32.1 ± 9.3
 - Range = 18-54
- Ethnicity
 - 38% White
 - 22% Black
 - 15% Asian
 - 9% Latino
 - 12% Multiracial
 - 4% Not given
- 38% Had children
- 34% Previously smoked cigarettes
- Health rating = 8.4 ± 1.2
- BMI = 27.7 ± 7.3
 - Range 17-52.4
- Education
 - 6% < HS grad
 - 14% HS or GED
 - 59% Some college
 - 20% Post grad study
- 61% Employed
- Current monthly income
 - $M = \$2,151$, $Mdn = \$1,325$
- BDI-II
 - 57% Nondepressed (0-13)
 - 27% Mildly to Moderately depressed (14-28)
 - 15% Severely depressed (29-63)
- Lifetime traumas = 9.6 ± 5.8
 - Range = 0-23

Telomere Length



Humphreys, et al., 2010

■ Nonabused ■ Abused

Multiple Regression Analysis

Summary Table for Two Variables

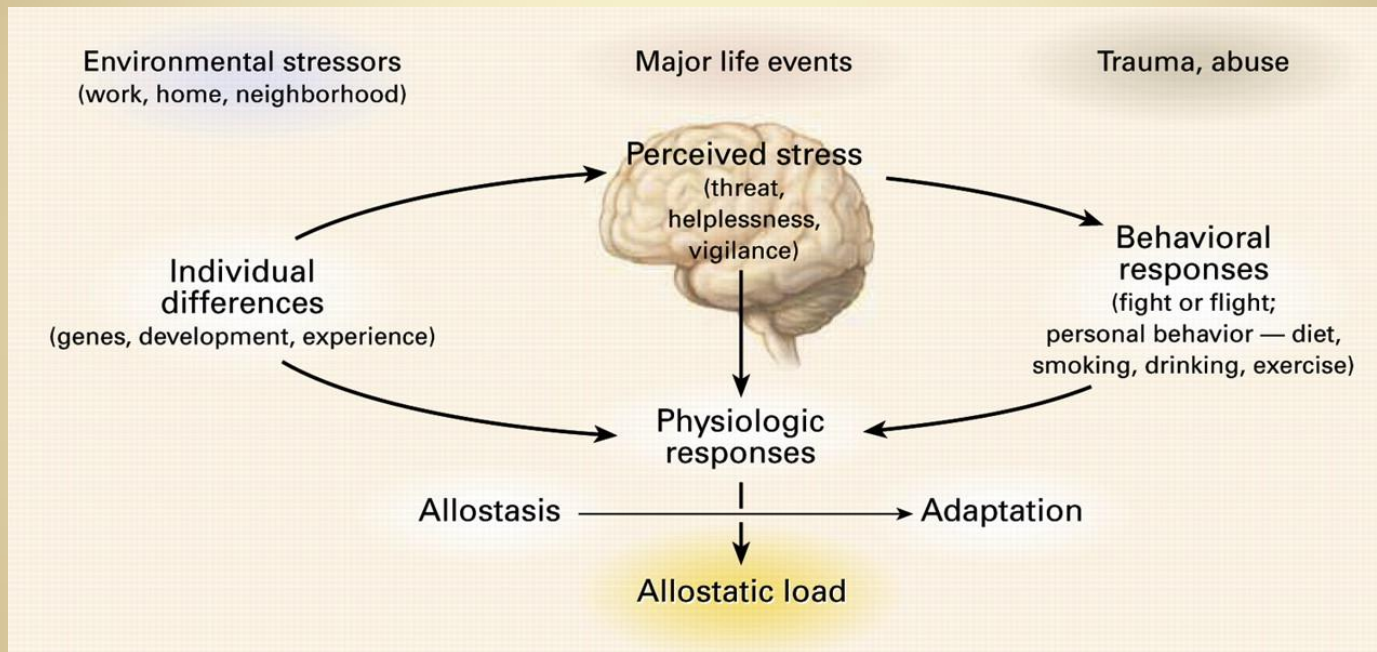
Predicting Telomere Length

| | Unstandardized Coefficient | | | | Confidence Interval for B | | |
|--------------------------------|----------------------------|----------------|-------|------|---------------------------|-------------|---------------------|
| Model | B | Standard Error | t | p | Lower Bound | Upper Bound | Part r ² |
| Have children | .15 | .05 | 2.82 | .006 | .045 | .257 | .067 |
| Length of time abused in years | -.01 | .05 | -2.11 | .038 | -.024 | -.001 | .037 |

$R^2 = .17$ ($N = 102$, $p < .001$)

Central role of the brain in allostasis and the behavioral and physiological response to stressors

It's in their heads, but it's also in their cells!



McEwen, B. S. *Physiol. Rev.* 87: 873-904 2007;
doi:10.1152/physrev.00041.2006

Additional considerations

STUDY LIMITATIONS

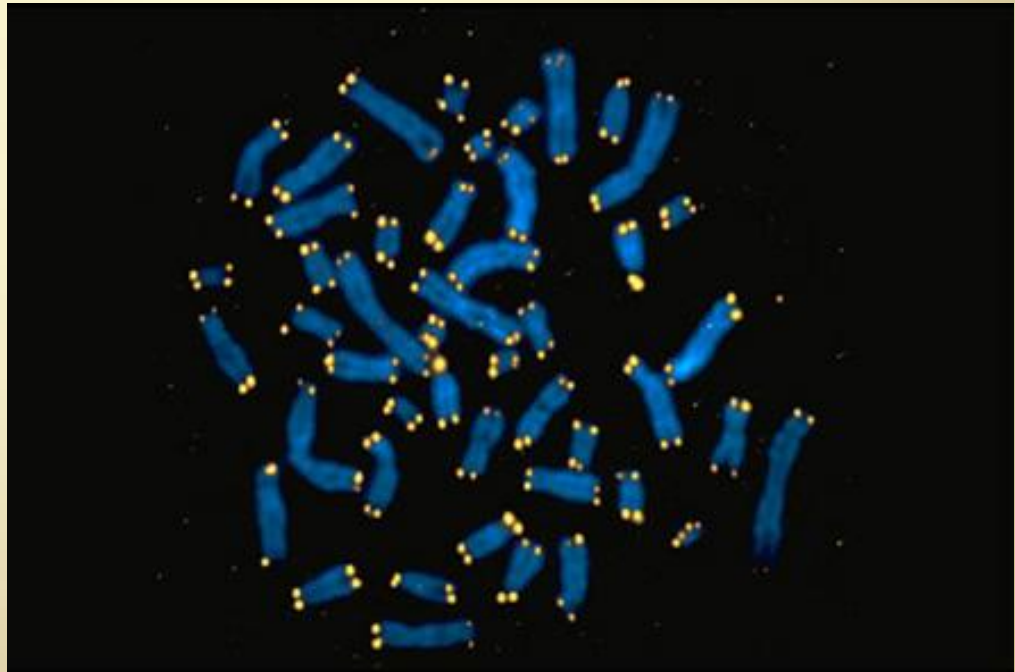
- Small sample size
- Convenience sample
- Cross-sectional design
- Limited to measure of telomere length alone

STUDY STRENGTHS

- Initial study of IPV and telomere length
- Community-based sample
- Comparison groups
 - Formerly abused women
 - Never abused women

Conclusions

- Telomere length was significantly shorter in formerly abused women vs. never abused women (5-10 years!)



Conclusions- continued

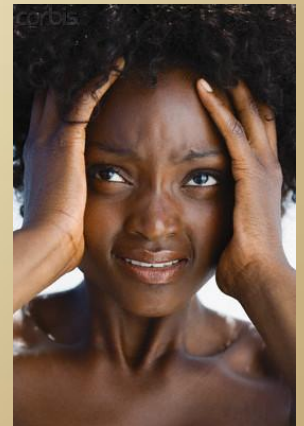
- Interventions that reduce oxidative stress & enhance resilience may be helpful to abused women

- Healthy behaviors
 - Good nutrition
 - Sleep
 - Exercise
 - “Power of Exercise” (Puterman, et al., 2010)
- Reduced perceptions of stress
 - Social support
 - Enhanced coping—stress management
 - Meditative practices
 - Yoga
 - ? Mindfulness stress reduction

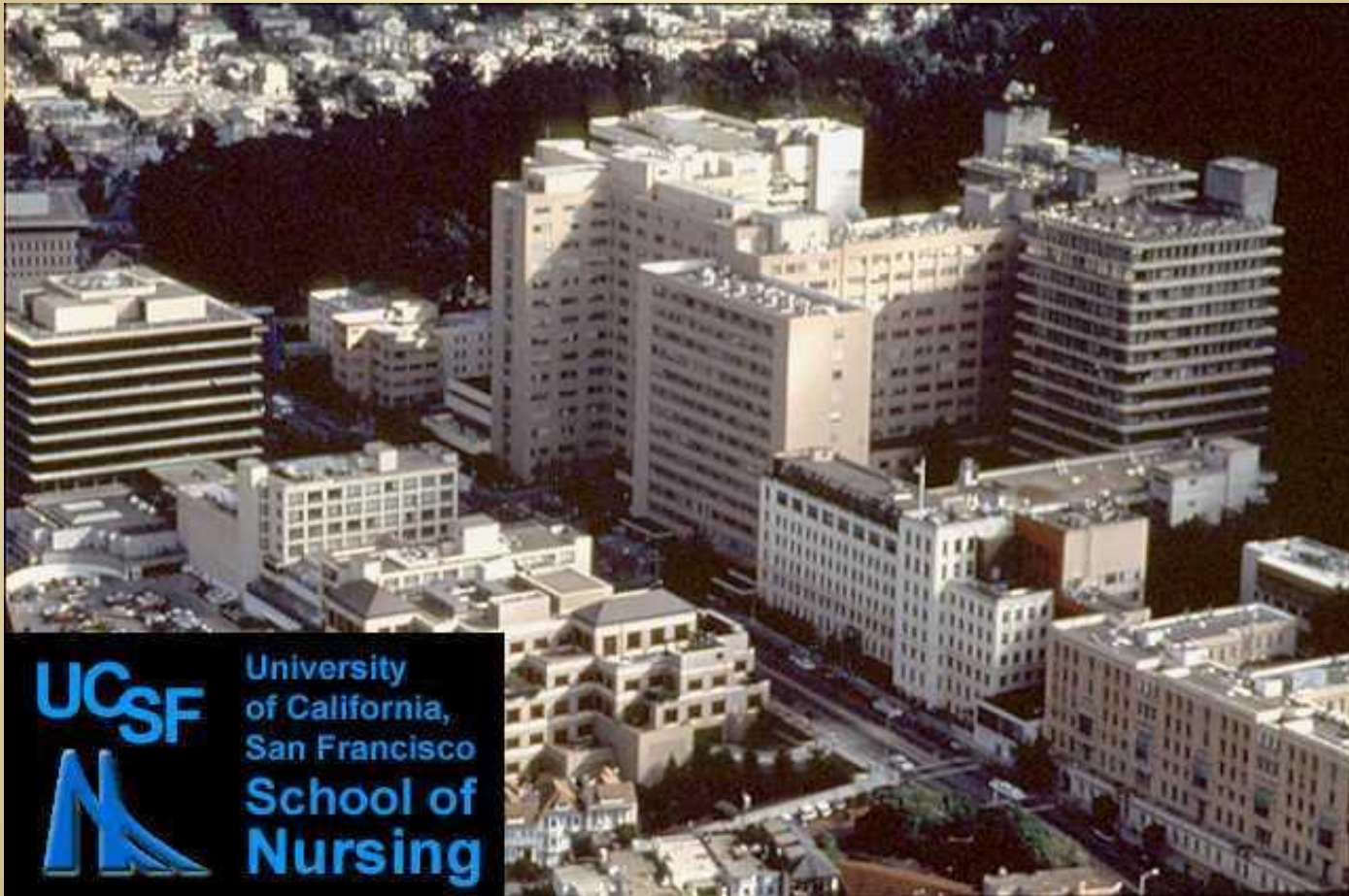


Conclusions- continued

- Interventions that end the violence and/or reduce women's exposure, may prove beneficial in reducing health consequences including depression.
 - Best predictor of chronic pain & telomere shortening---length of time in abusive relationship
 - If IPV assessment is as intervention, then assessment may contribute to decreased exposure
 - Certainly it does no harm



Thank you



Selected References

- **Humphreys, J.** (2001). Turning points and adaptations in resilient adult daughters of battered women. *Journal of Nursing Scholarship*, 33, 245-251.
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- **Humphreys, J., Cooper, B. A., & Miaskowski, C.** (in press). Occurrence, characteristics, and impact of chronic pain in a community-based sample of formerly abused women. *Violence Against Women*.