



Breastfeeding Makes All the Difference
Breastfeeding's Role in Overcoming Adversity

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**We do not live in
a perfect world**



**Mothers are often
overwhelmed**



**Many have a
history of
trauma or
adversity**



Can breastfeeding help?





**What is
childhood
adversity?**

Child Maltreatment

CSA, CPA, CEA, Neglect

Parental Impairment

*Substance abuse, mental illness,
partner violence, criminal
activity*

Parental Loss

Death or divorce

Low Socioeconomic Status

*Community violence, unsafe
housing, food insecurity, medical
care*



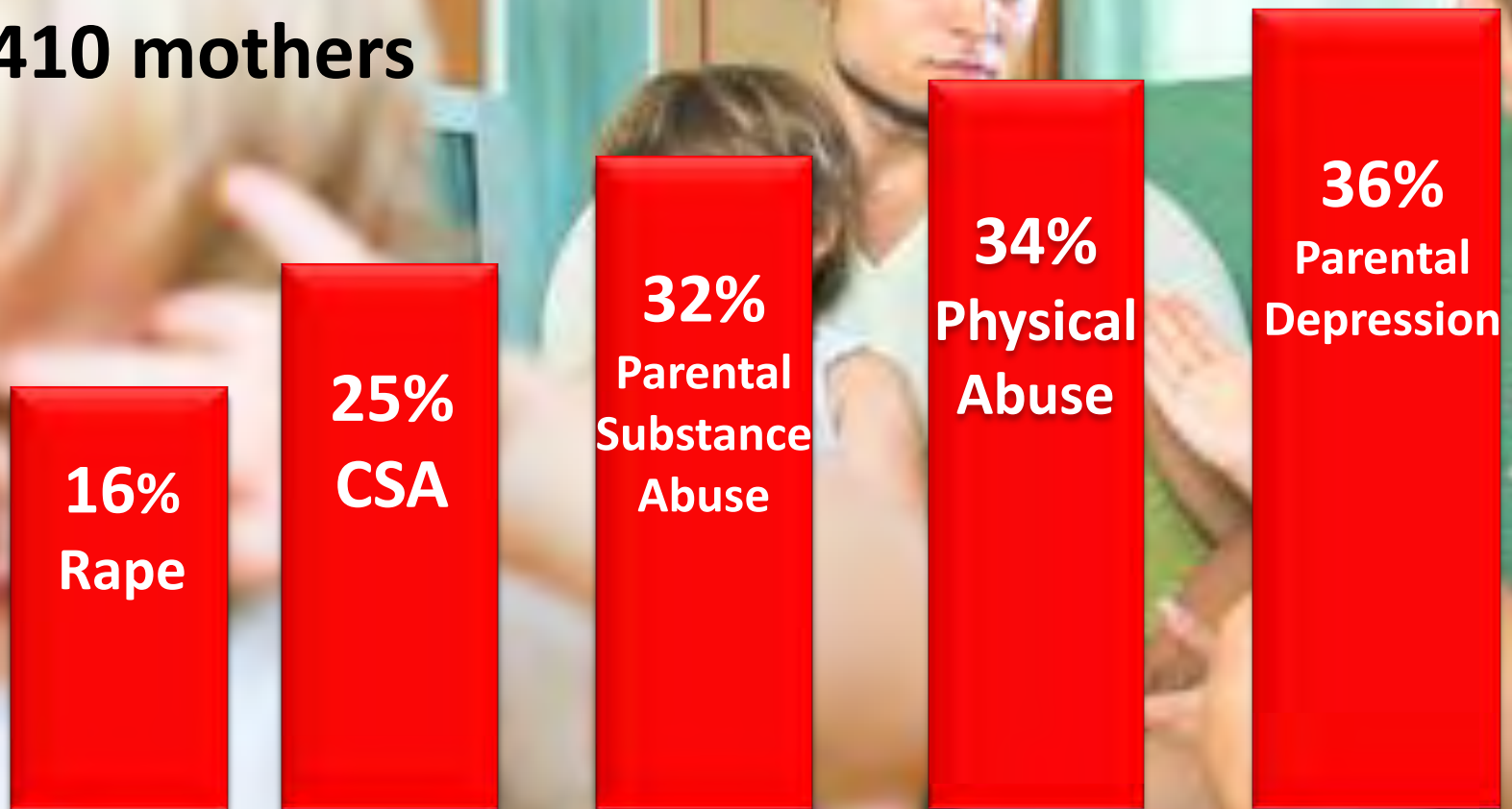
■ Suburban ■ Urban



Rich-Edwards et al. 2011, *Intl J Epidem*, 40, 375-384

Survey of Mothers' Sleep and Fatigue

6,410 mothers





Psychoneuroimmunology

Inflammation

Fight-or-flight

Cortisol

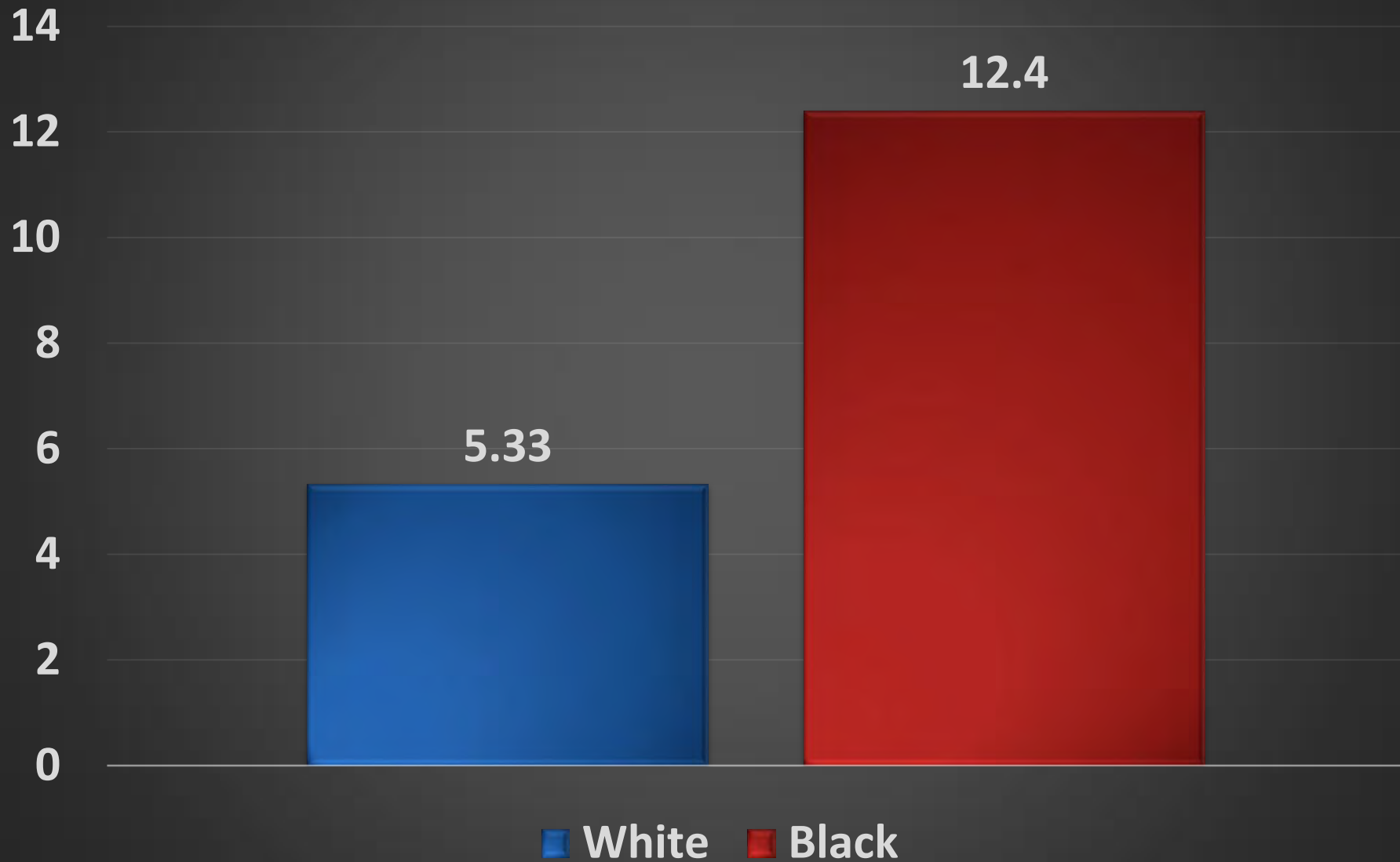


Racial/Ethnic Health Disparities

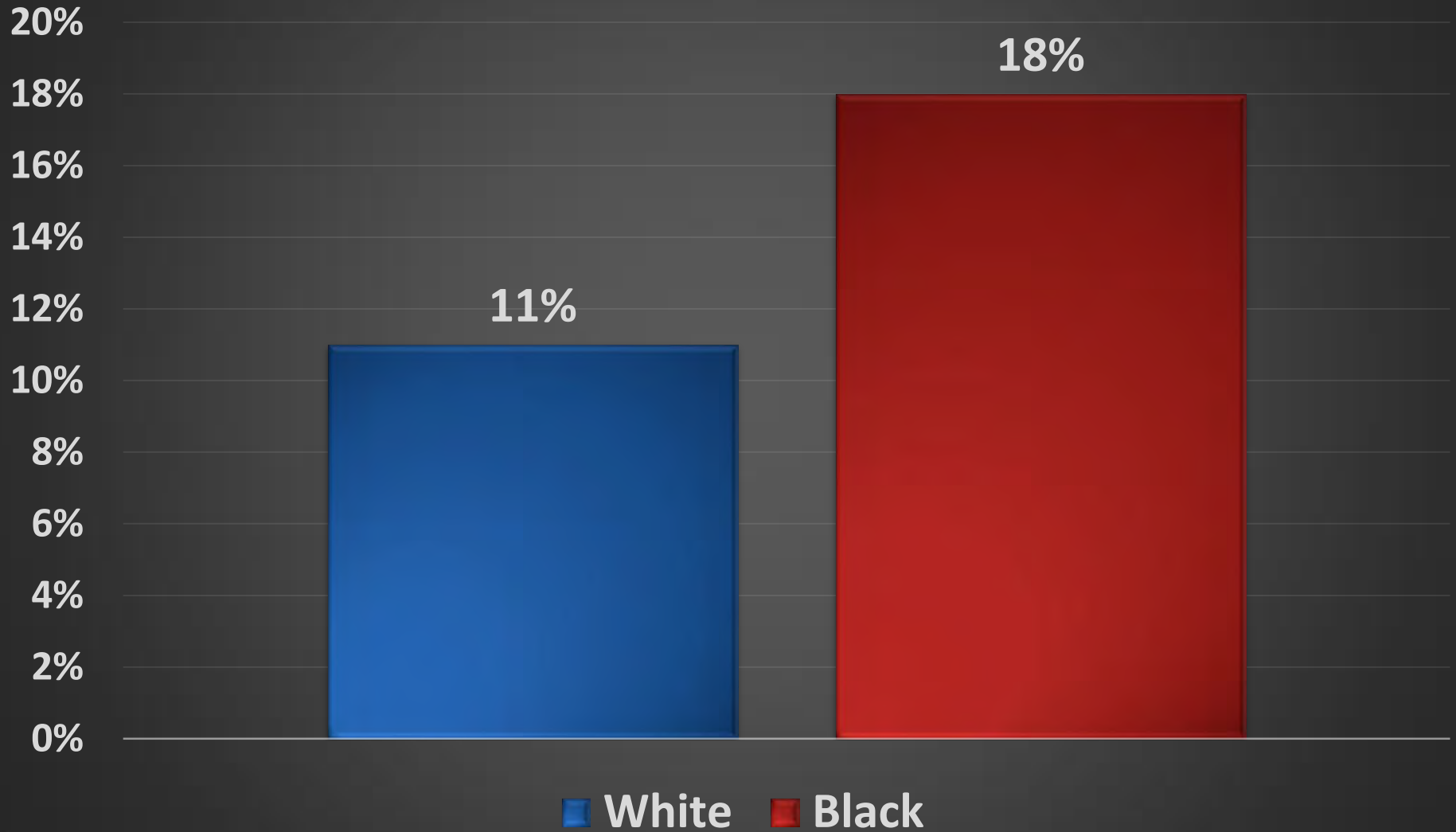
A close-up photograph of a newborn baby lying in a hospital bed. The baby is wearing a yellow heart-shaped medical device on their chest, which has several small holes. A clear plastic tube is connected to the baby's mouth. A person's hands are visible, holding the device and the tube. The baby's eyes are closed, and they appear to be resting. The background is a plain, light-colored wall.

U.S. ranks a 41st in the world in infant mortality

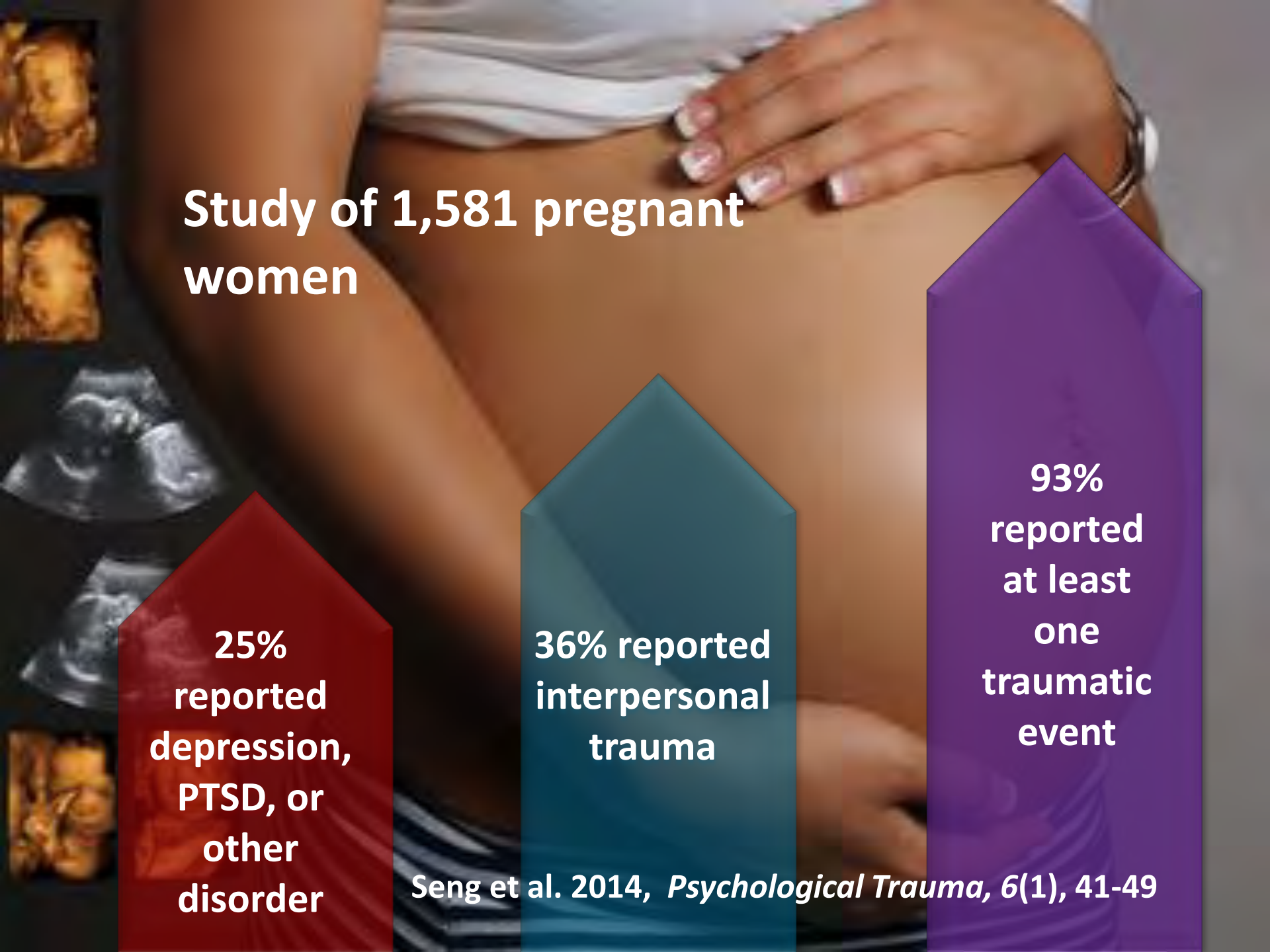
Infant Death Rates per 1,000 Live Birth



Percentage of Preterm Births



http://www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_01.pdf



Study of 1,581 pregnant women

**25%
reported
depression,
PTSD, or
other
disorder**

**36% reported
interpersonal
trauma**

**93%
reported
at least
one
traumatic
event**

Seng et al. 2014, *Psychological Trauma*, 6(1), 41-49



PTSD

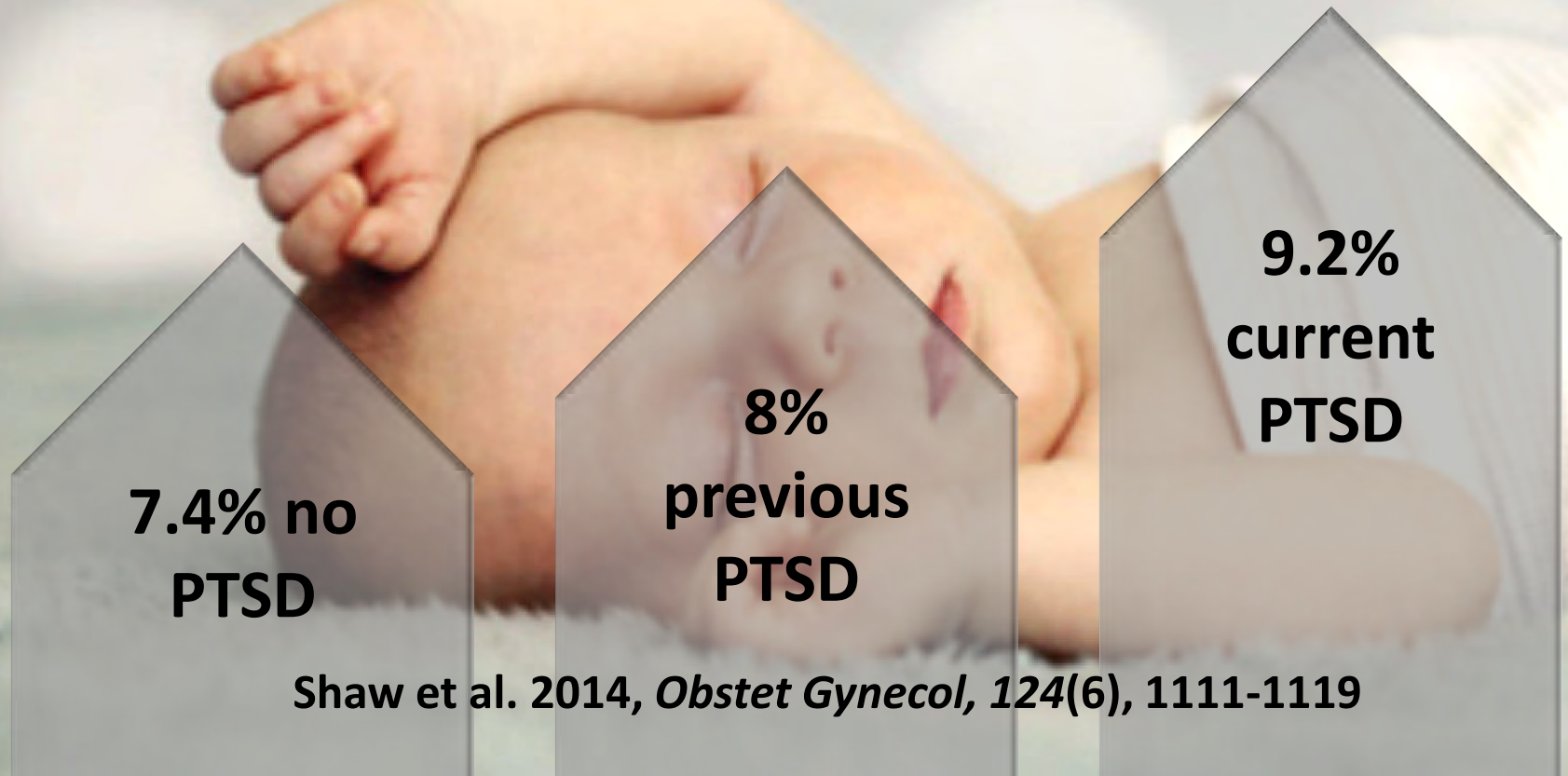
PTSD

PTSD

PTSD

PTSD

16,334 deliveries at VA Hospital 2000-2012



**7.4% no
PTSD**

**8%
previous
PTSD**

**9.2%
current
PTSD**

Shaw et al. 2014, *Obstet Gynecol*, 124(6), 1111-1119



2,654 women in U.S.

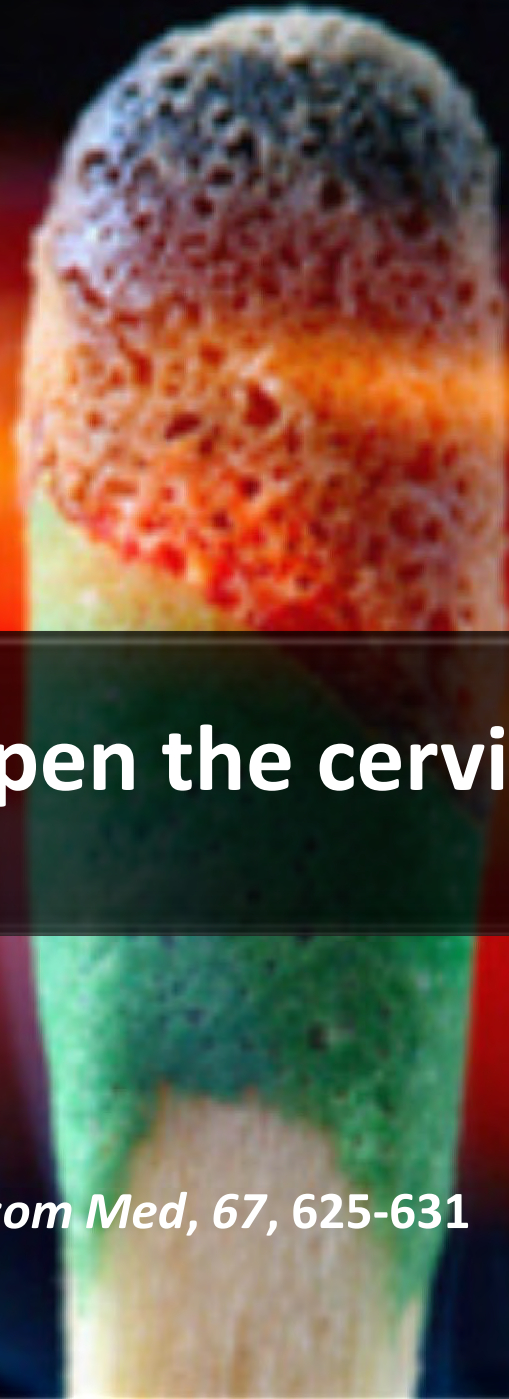
**Yonkers et al. 2014. *JAMA Psychiatry*, 71(8),
897-904**

**Women with
PTSD and
major
depression
had 4 times
the risk of
preterm birth**

**Inflammation high
in stressed and
depressed mothers**

Inflammation molecules ripen the cervix

Coussons-Read et al. 2005, *Psychosom Med*, 67, 625-631

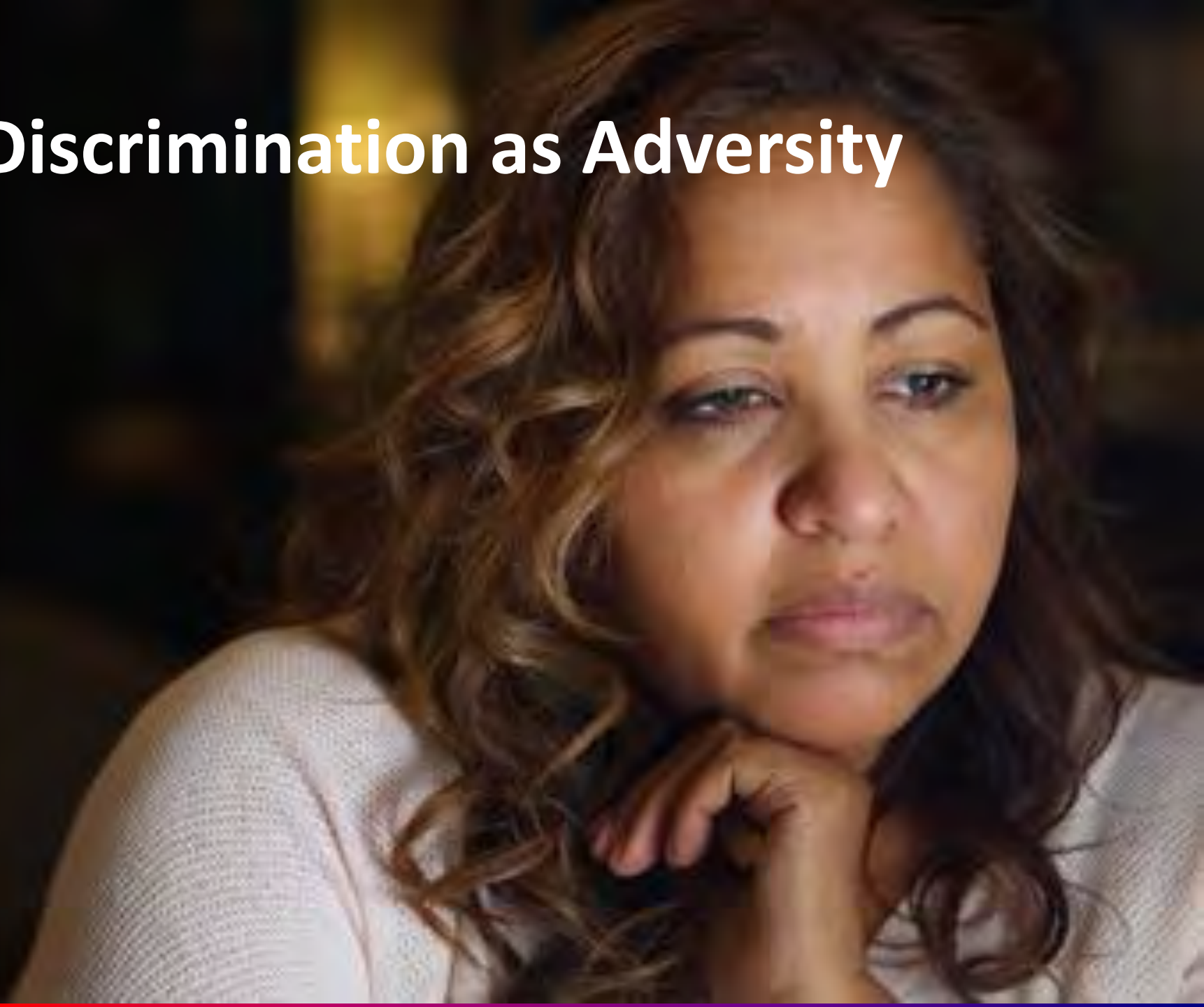



A close-up photograph of a person's hand cracking a white egg into a light-colored wooden bowl. The egg is held in the palm, and the yolk is being poured into the bowl. The background is a plain, light grey surface.

291 low-income moms

**DHA-enriched eggs increased
gestation length by 6 days
(+ 2.3 days)**

Discrimination as Adversity





296 African Americans

**Discrimination
associated with
elevated C-reactive
protein levels**

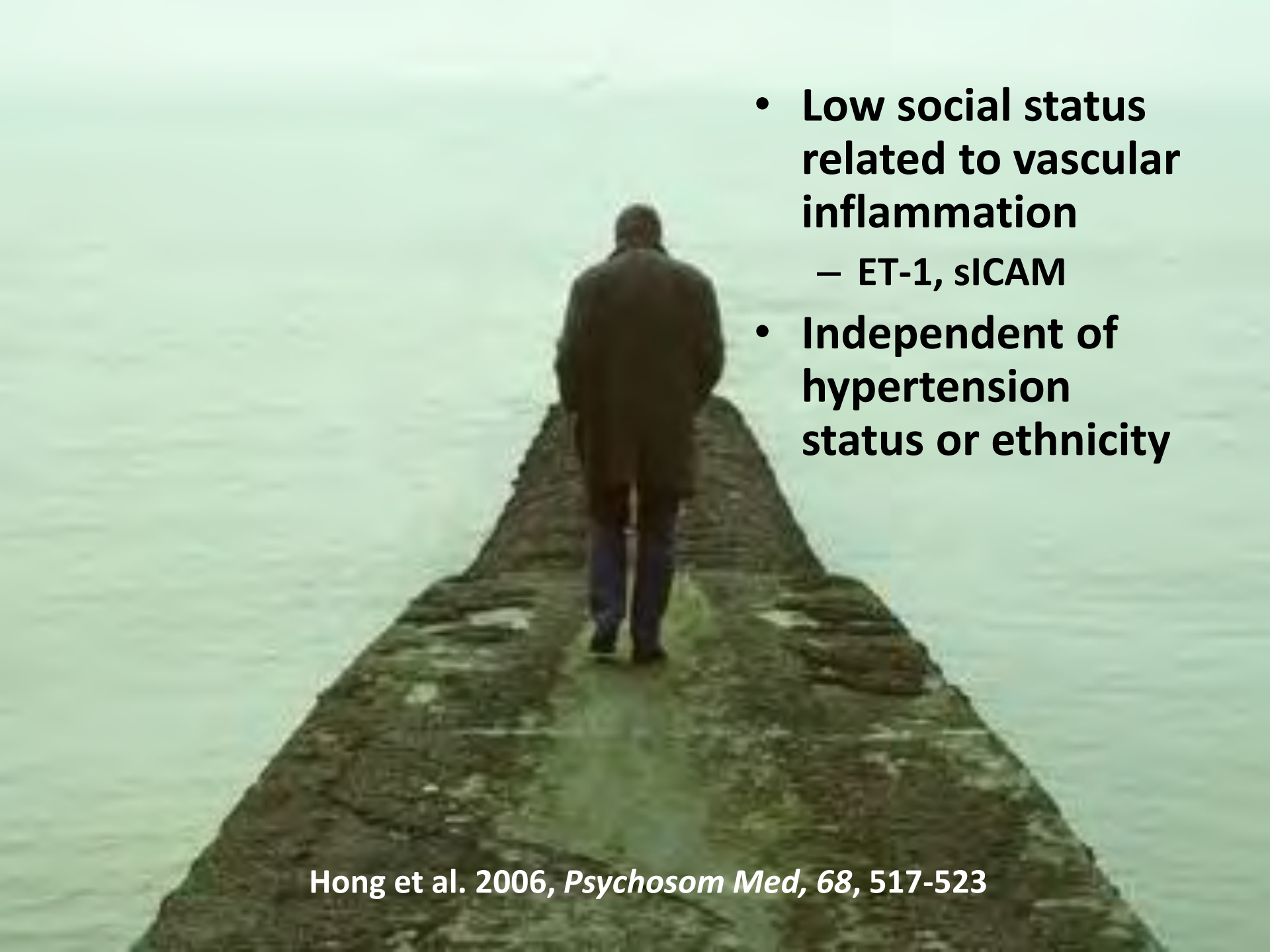
Lewis et al. 2010, *Brain Behav Immun*, 24(3), 438-443



- **Perceived discrimination**

- You are treated with less courtesy other people
- You are treated with less respect than other people
- You receive poorer service than other people at restaurants and stores
- People act as if they think you are not smart

Lewis et al. 2010, *Brain Behav Immun*, 24(3), 438-443

- 
- A person in a dark coat is walking away from the camera on a narrow, mossy stone path that extends into a body of water. The path is flanked by water on both sides, and the person is centered on the path, walking towards the horizon. The overall tone is muted and contemplative.
- **Low social status related to vascular inflammation**
 - ET-1, sICAM
 - **Independent of hypertension status or ethnicity**

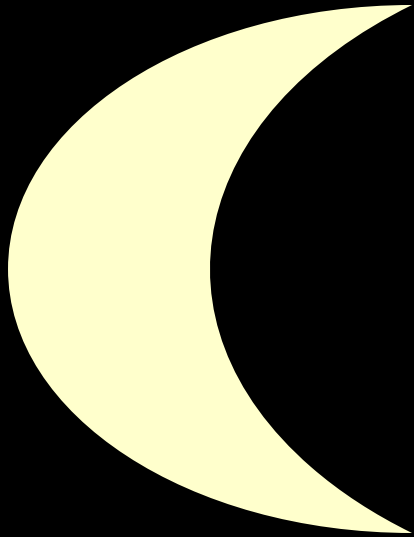
Hong et al. 2006, *Psychosom Med*, 68, 517-523



Low parental education predicted high school students

- Higher insulin levels**
- Higher glucose**
- Greater insulin resistance**
- Higher-LDL, lower HDL**
- Higher waist circumference**
- Higher BMI**

Study of 187 adults



Whites

16 min
to sleep

6.8% SWS

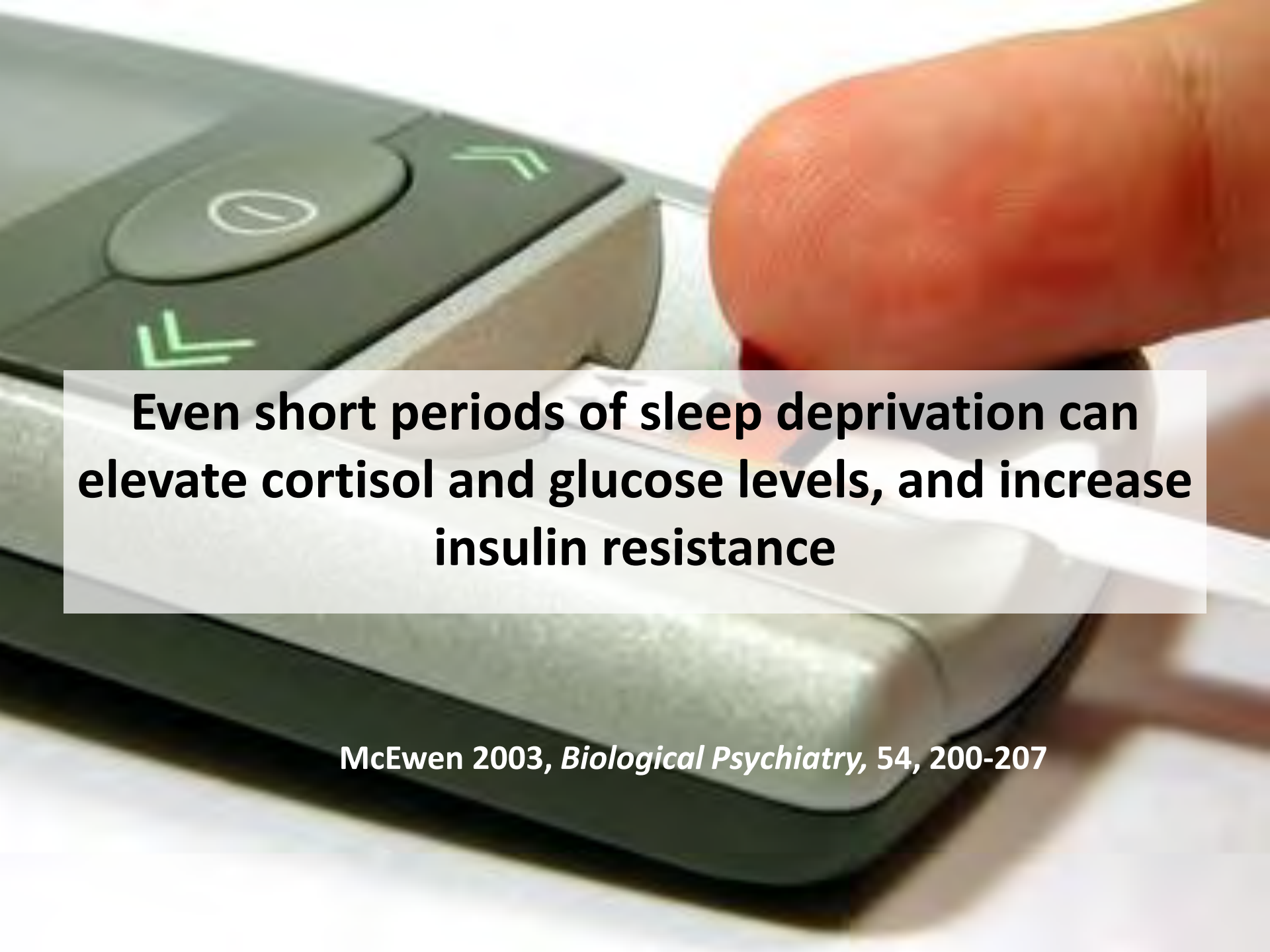
Sleep Time

Blacks

25 min to
sleep

3.6% SWS

Mezick et al. 2008,
Psychosom Med, 70, 410-416



Even short periods of sleep deprivation can elevate cortisol and glucose levels, and increase insulin resistance

McEwen 2003, *Biological Psychiatry*, 54, 200-207



Short sleep related to:

Abdominal obesity

Elevated fasting glucose

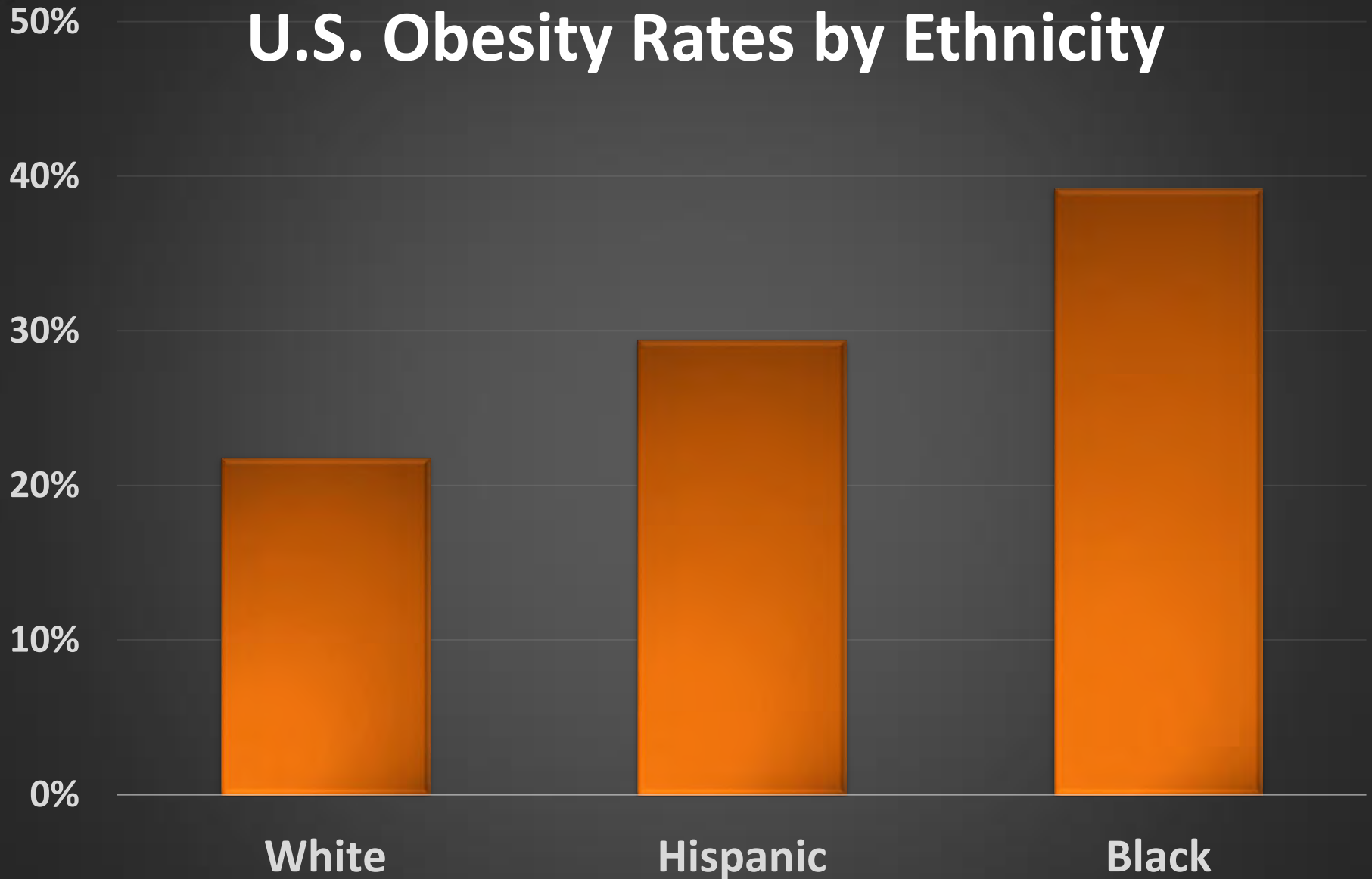
Hypertriglyceridemia

Hall et al. 2008, *Sleep*, 31(5), 635-643



**BMI is related to
race/ethnicity**

U.S. Obesity Rates by Ethnicity

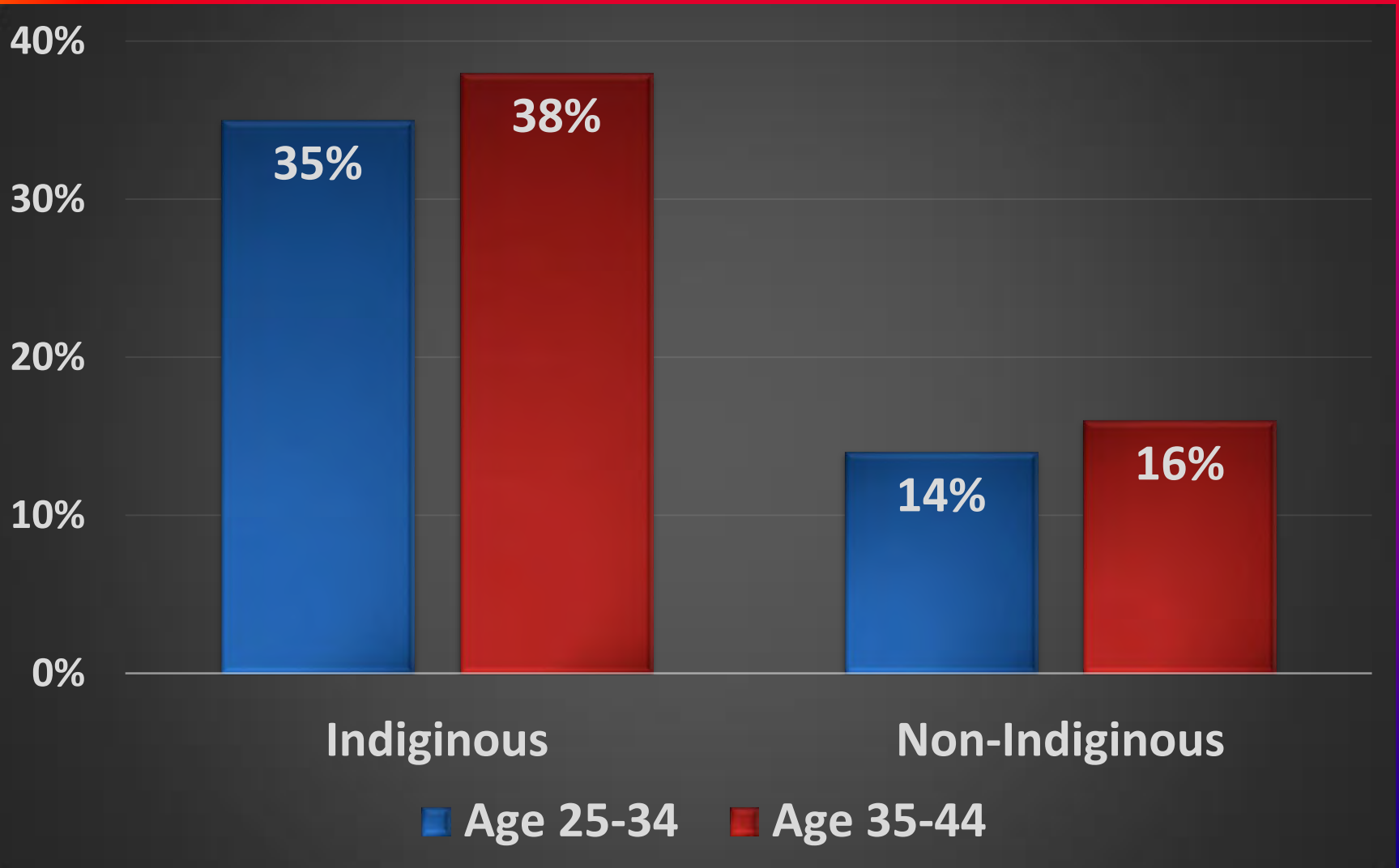


CDC, 2010, <http://www.cdc.gov/Features/dsObesityAdults/>

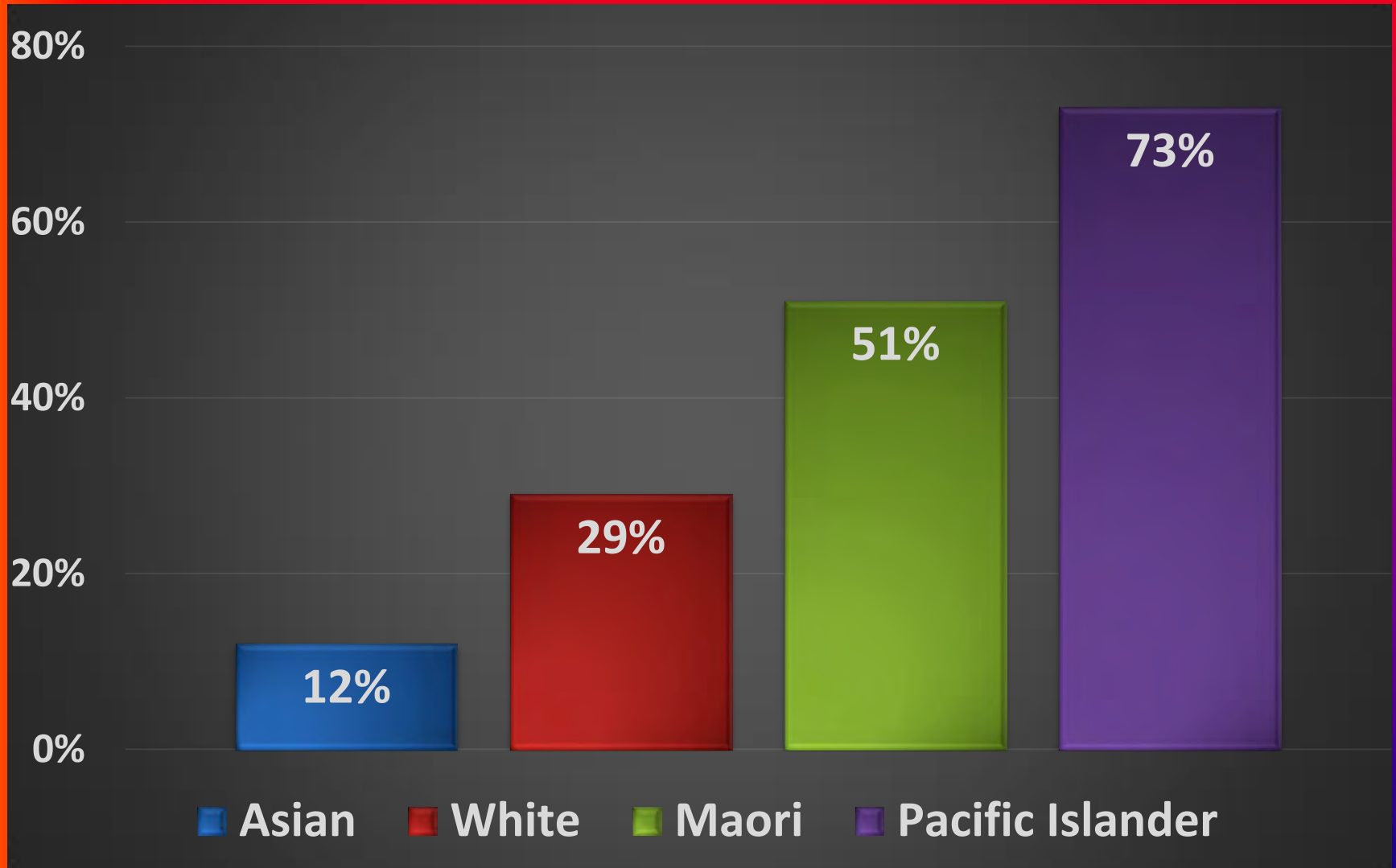
The same is
true in
Australia and
New Zealand



BMI >30 Rates for Australian Women



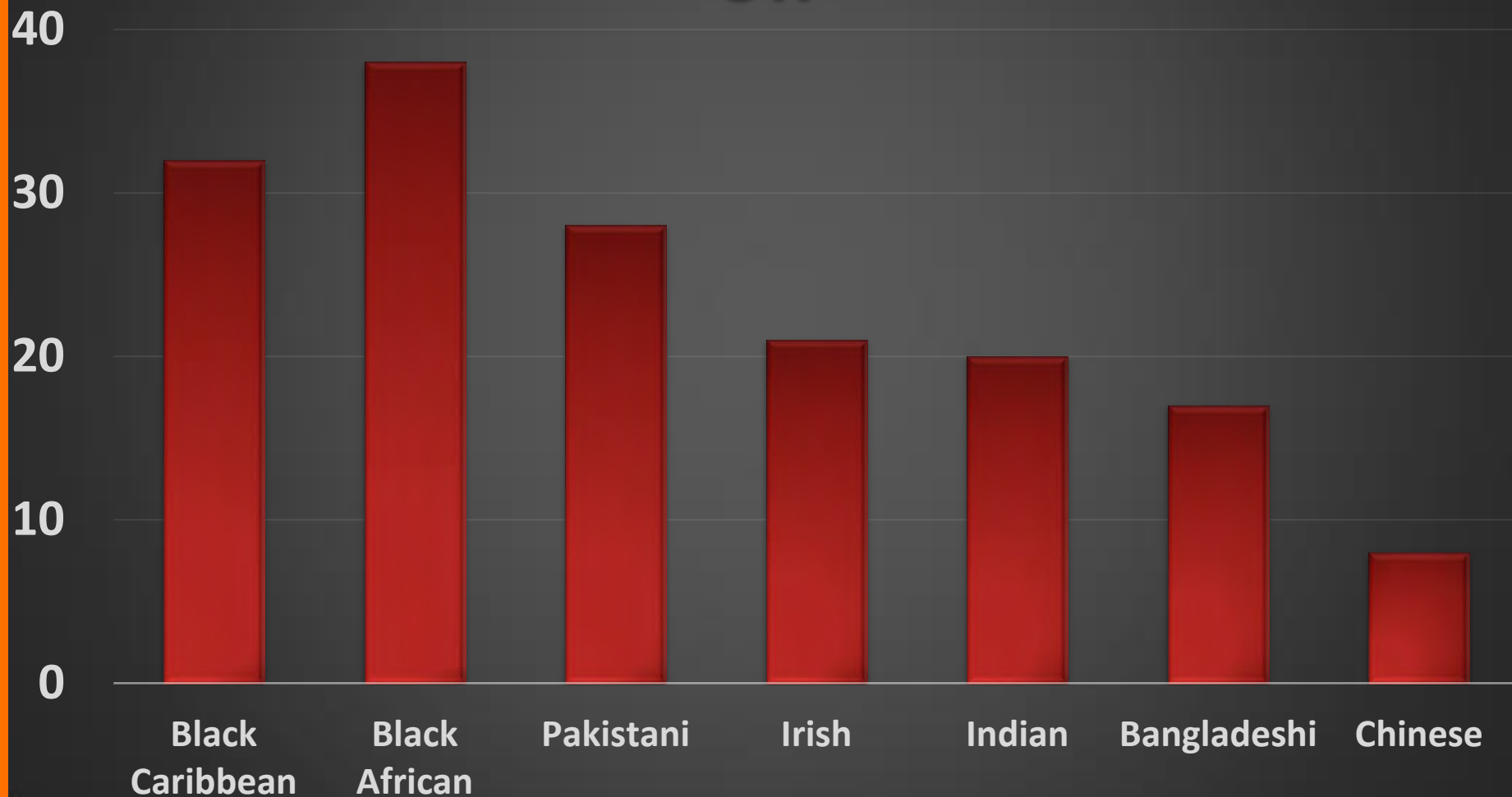
New Zealand BMI >30 Rates for Women



BMI >30 in the UK

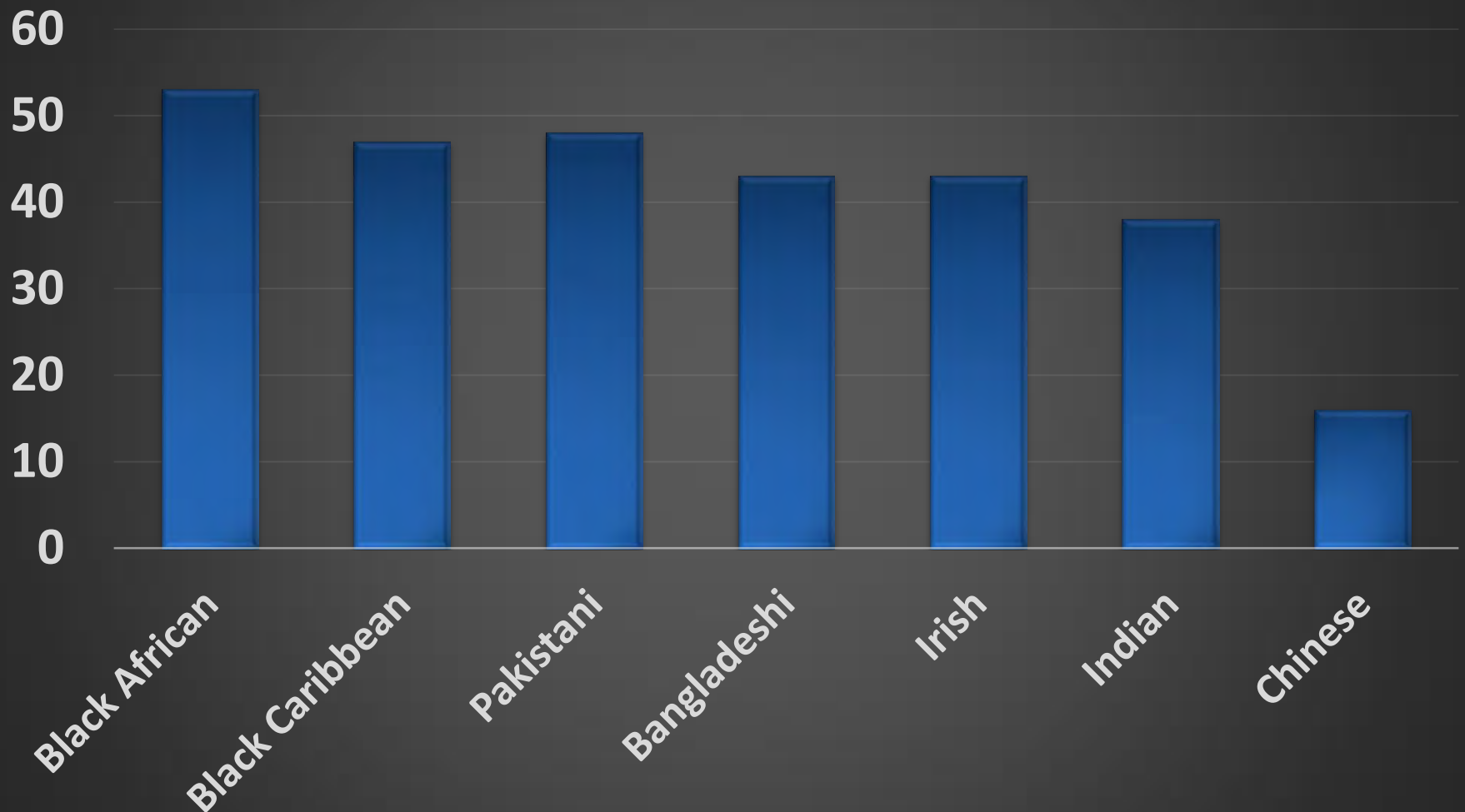


Women's BMI by Ethnic Group in UK



NHS. 2011, *Obesity and ethnicity*

Waist Circum >102 cm



NHS. 2011, *Obesity and ethnicity*

The Pima Indians of the Gila River

Prevalence 50%

Prevalence 8%

Taubes, 2008; *Good calories, bad calories.* Knopf

Now

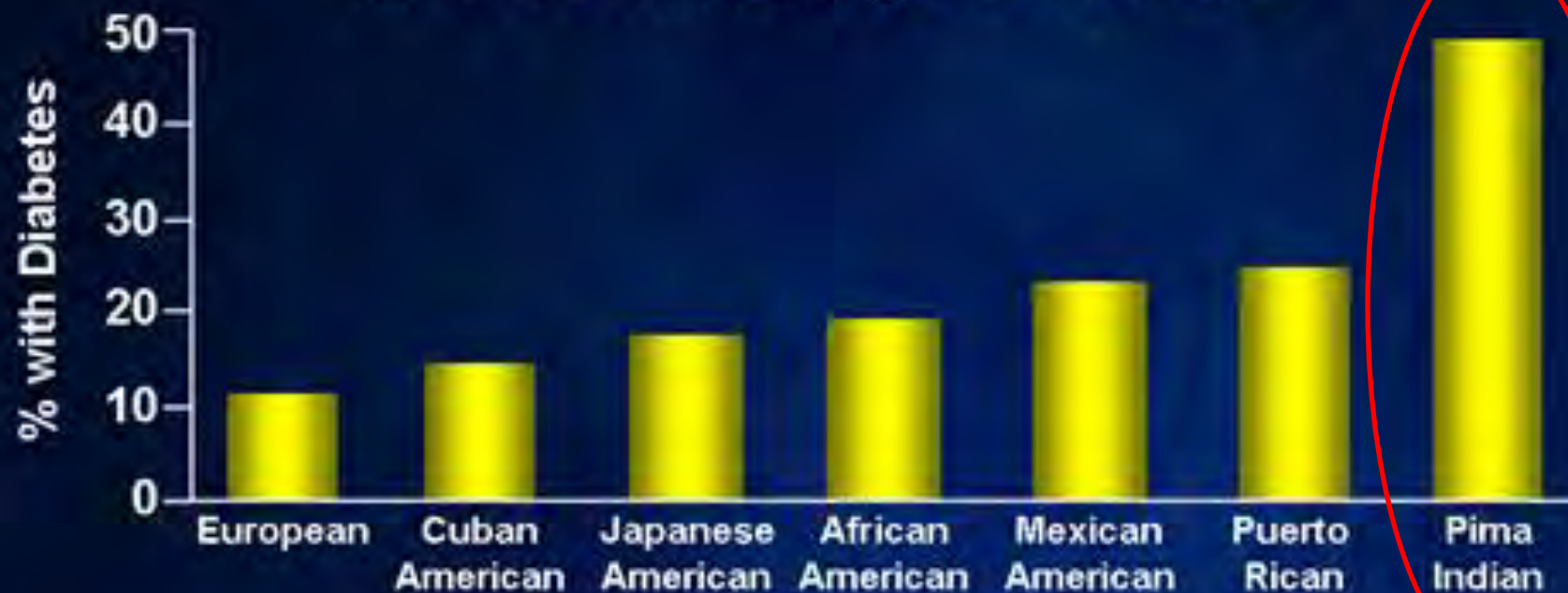


Then



U.S. Diabetes Prevalence by Ethnic Group

Men and Women, Age 45-74 Years



Harris MI, et al. *Diabetes*. 1987;36:523-534.

Flegal KM, et al. *Diabetes Care*. 1991;14(suppl 3):628-638.

Knowler WC, et al. *Diabetes Care*. 1993;16(suppl 1):216-227.

Fujimoto WY, et al. *Diabetes Res Clin Pract*. 1991;13:119-128.

Fujimoto WY, et al. *Diabetes*. 1987;36:721-729.












Trauma and BMI



**Physical and sexual
abuse as children
or teens increased
the risk of Type 2
diabetes**



- **50% increase in diabetes risk for severe physical abuse**
- **69% increase for repeated forced sex**

- 
- **Physically and sexually abused girls had higher BMIs**
 - **Trajectories grew wider as the girls grew**
 - **Particularly for those who experienced repeated forced sex**

Meta-analysis of 41 studies (N=190, 285) examining the link between CAN and obesity

Lifetime Obesity

Child Maltreatment

Danese & Tan, 2014, *Molecular Psychiatry*, 19, 544-554

**How does
breastfeeding
protect against
the effects of
adversity?**





It's more than milk



Oxytocin

Well-being

Affiliation

Bonding

Stress

Depression & anxiety

Alienation

Hostility & strife



**Short-term
lessening
of the
stress
response**

**Response
to
induced
stressor**

ACTH

Cortisol



**Baby at the Breast
Lowers Mothers' Stress**

Heinrichs et al. 2001, *J Clin Endo Metabol*, 86, 4798-4804

Hypertension

Diabetes

CVD

High
Triglycerides




Lifetime Protection For Mothers

Schwartz et al. 2009, *Obstet Gyn*, 113, 974-982



Attachment is essential to survival above and beyond food and shelter



Ainsworth & Bowlby 1991, *Am Psychologist*, 46, 333-341

**Proximity and maternal responsiveness
promote secure attachment**

**14-year longitudinal
study in W. Australia of
2900 pregnant women**

**Breastfeeding >12 months
=
Better child mental health**

Oddy et al. 2009, *J Pediatrics* 156, 568-574





■ **Child Behavior Checklist Scores**

	Never BF	BF 12+ Months
Age 2	16.1	9.6
Age 5	26.3	16.0
Age 8	19.4	13.5
Age 10	15.2	12.6
Age 14	16.7	10.9

**Secure
Attachments
Decrease
Adult Health
Problems**





**Insecure
attachments at
12-18 months
associated with
inflammation-
based illness at
age 32**

Puig et al. 2013, *Health Psychology*, 32(4), 409-417



**Breastfeeding lowers risk of intergenerational abuse
and trauma**

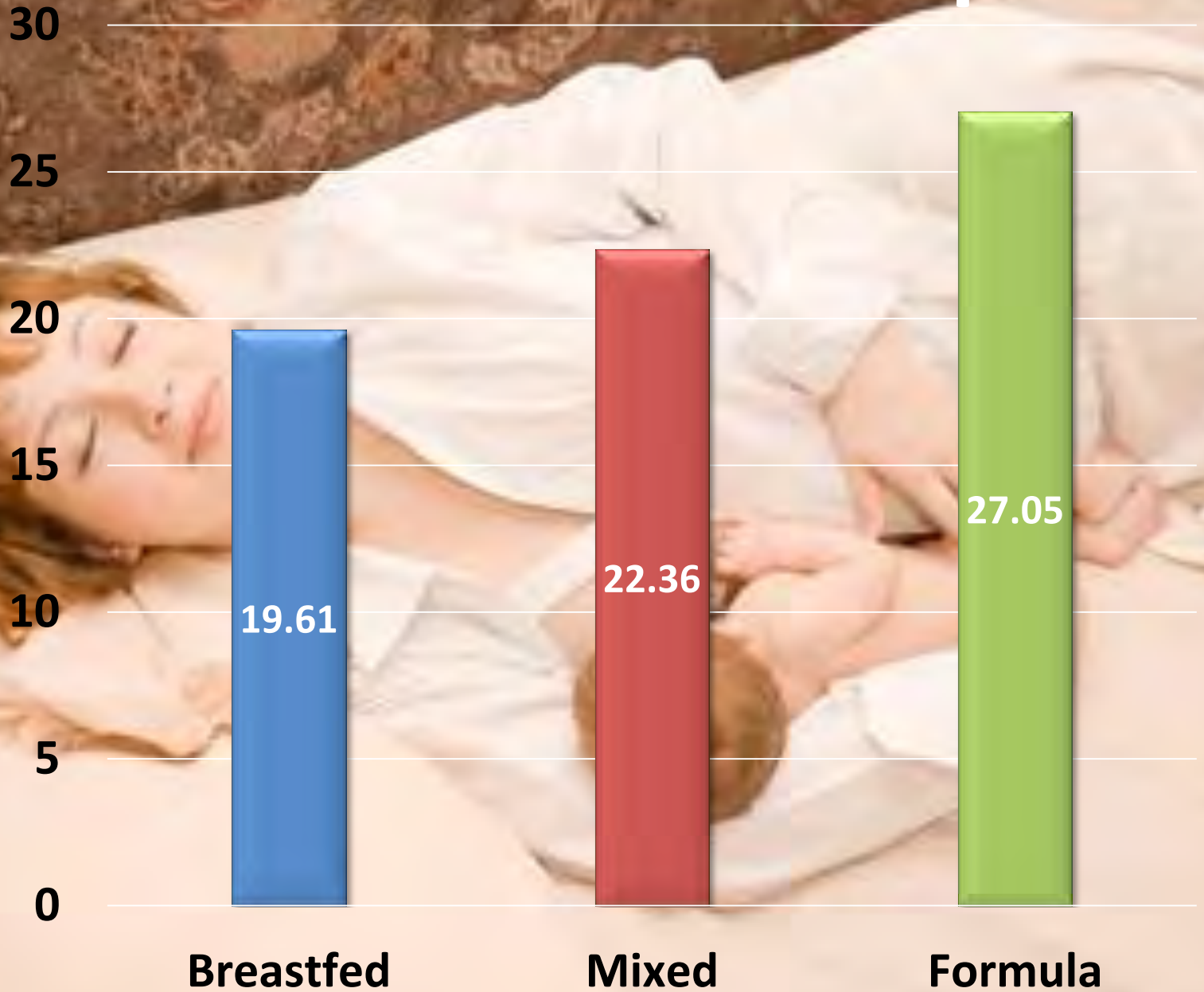
**Infant sleep
difficulties**

**Maternal
depressed mood**



Hairston et al. 2011 *Sleep*, 34(10), 1373-1383

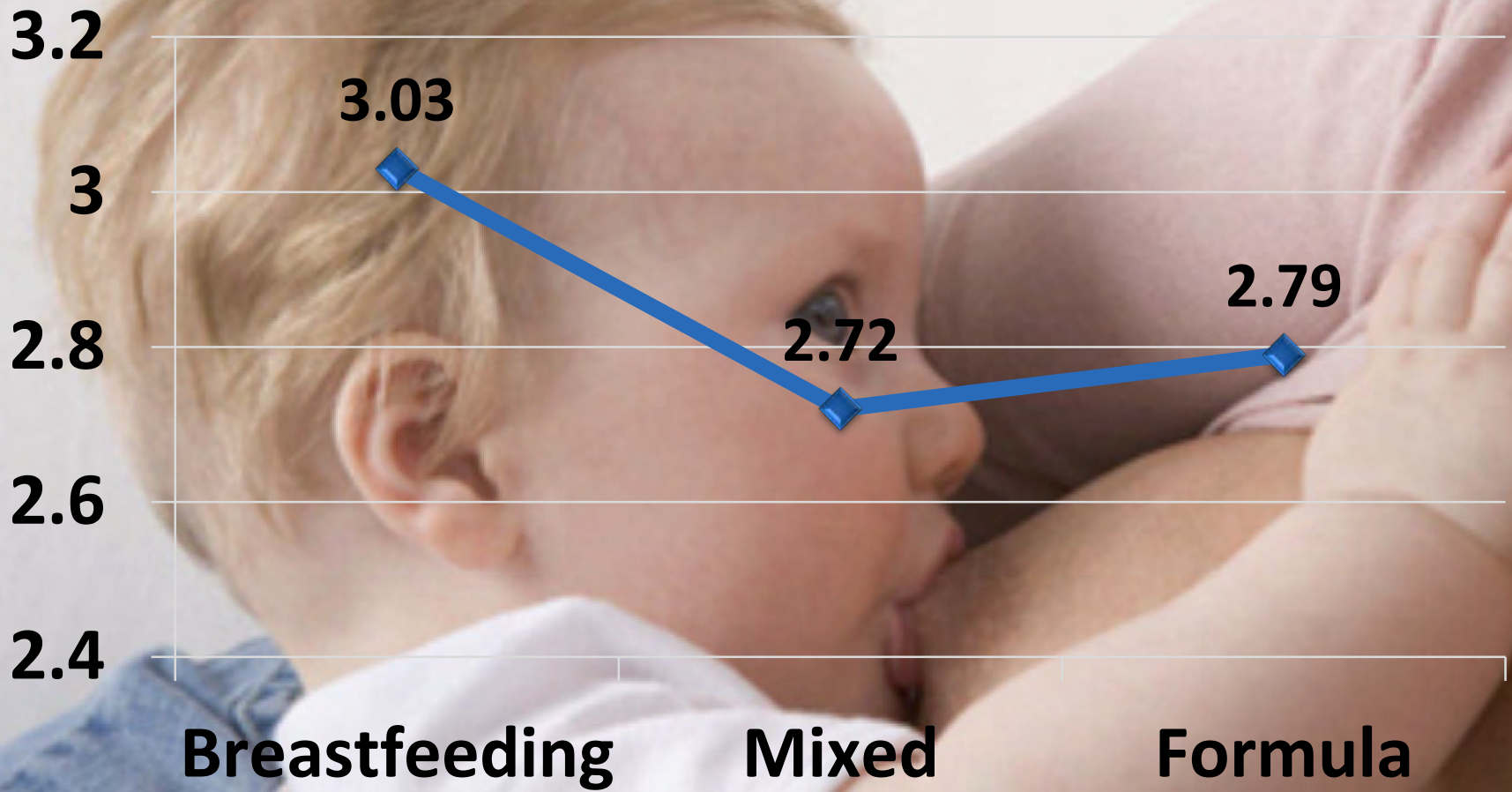
Minutes to Fall Asleep



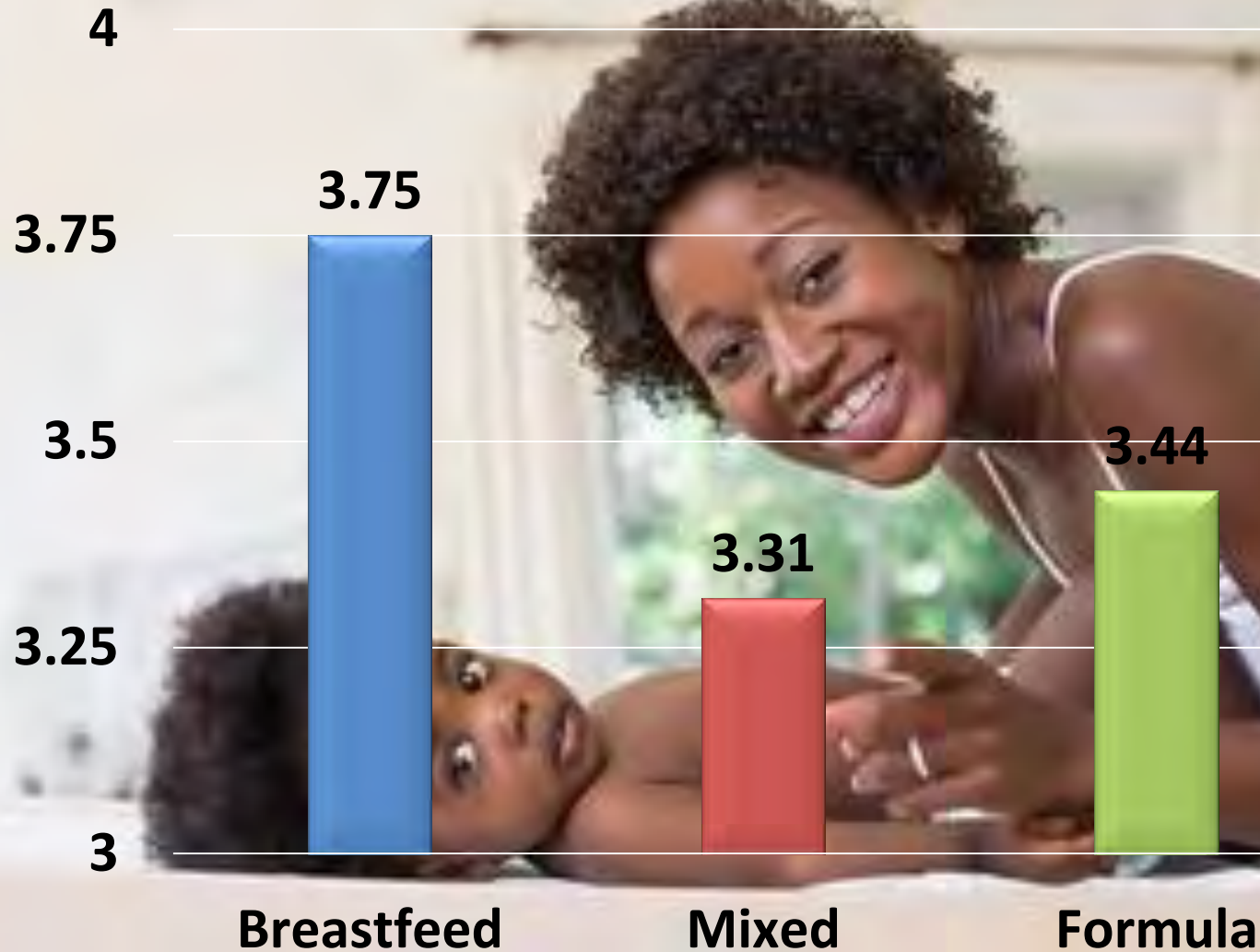
Hours Mothers Sleep



Mothers' Daily Energy



Overall Physical Health

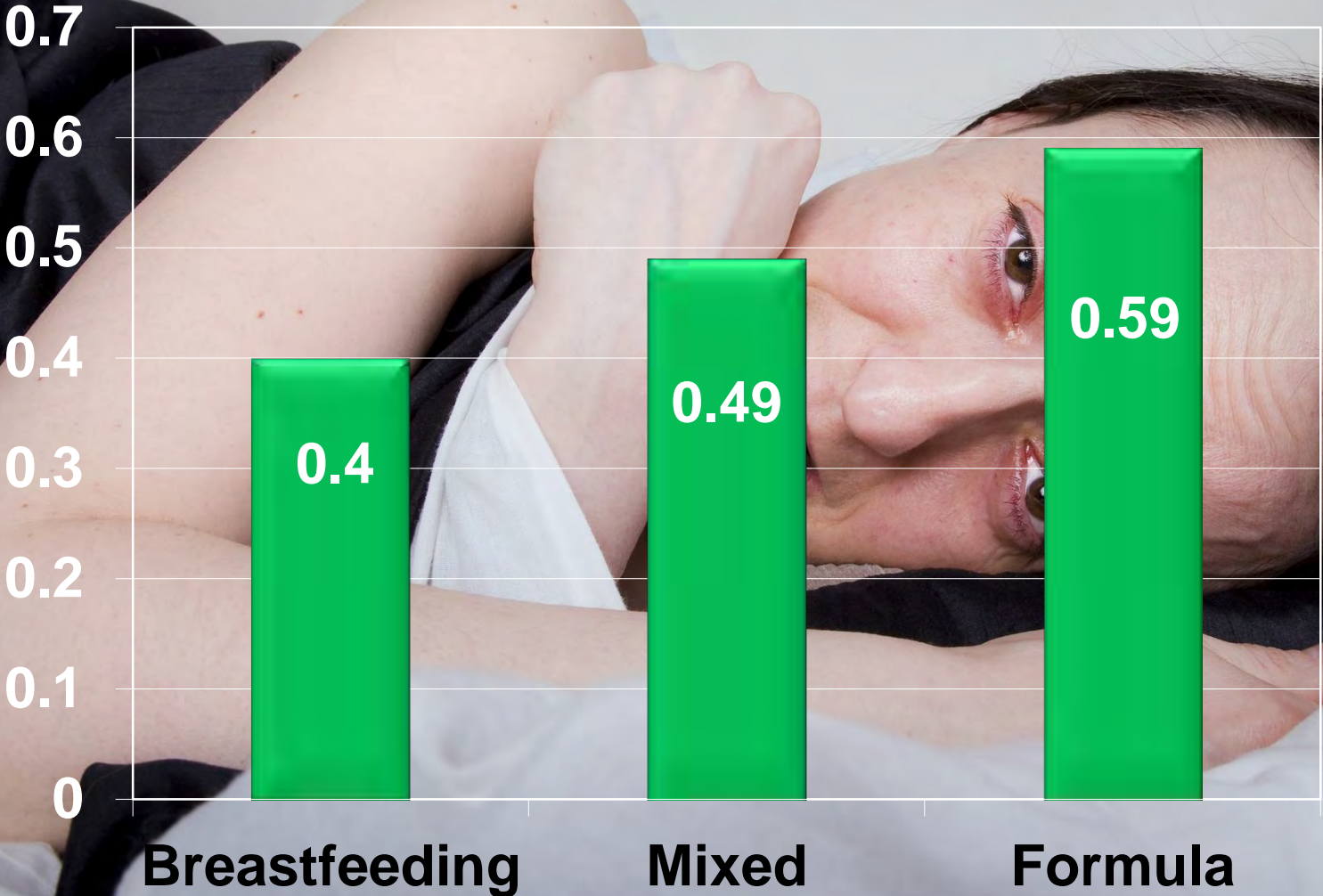


Maternal Mental Health

A woman with long brown hair, seen from behind, stands in a vast field of red poppies. The field stretches to the horizon under a bright blue sky with scattered white clouds. The woman is wearing a light blue t-shirt. The overall scene is peaceful and natural.

Groer & Kendall-Tackett (2011) *Breastfeeding protects women's health throughout the lifespan*. Amarillo, TX: Hale Publishing

Feeling Down, Depressed or Hopeless



Anhedonia



Mothers' Depression

1.5

1

0.5

Breastfeeding

Mixed

Formula





**Does breastfeeding
help with child abuse?**

A photograph of a family of three. A man on the left is leaning over a young child in the center, who is smiling broadly. A woman on the right is also smiling and looking at the child. They are all dressed in casual, light-colored clothing. The background is a bright, slightly blurred indoor setting.

**15-year
longitudinal
study, 7,223
Australian
mother-infant
dyads**

**Mothers who breastfed for 4
months were 3.8 times less likely to
neglect their children**

Strathearn et al. 2009, *Pediatrics*, 123, 483-493



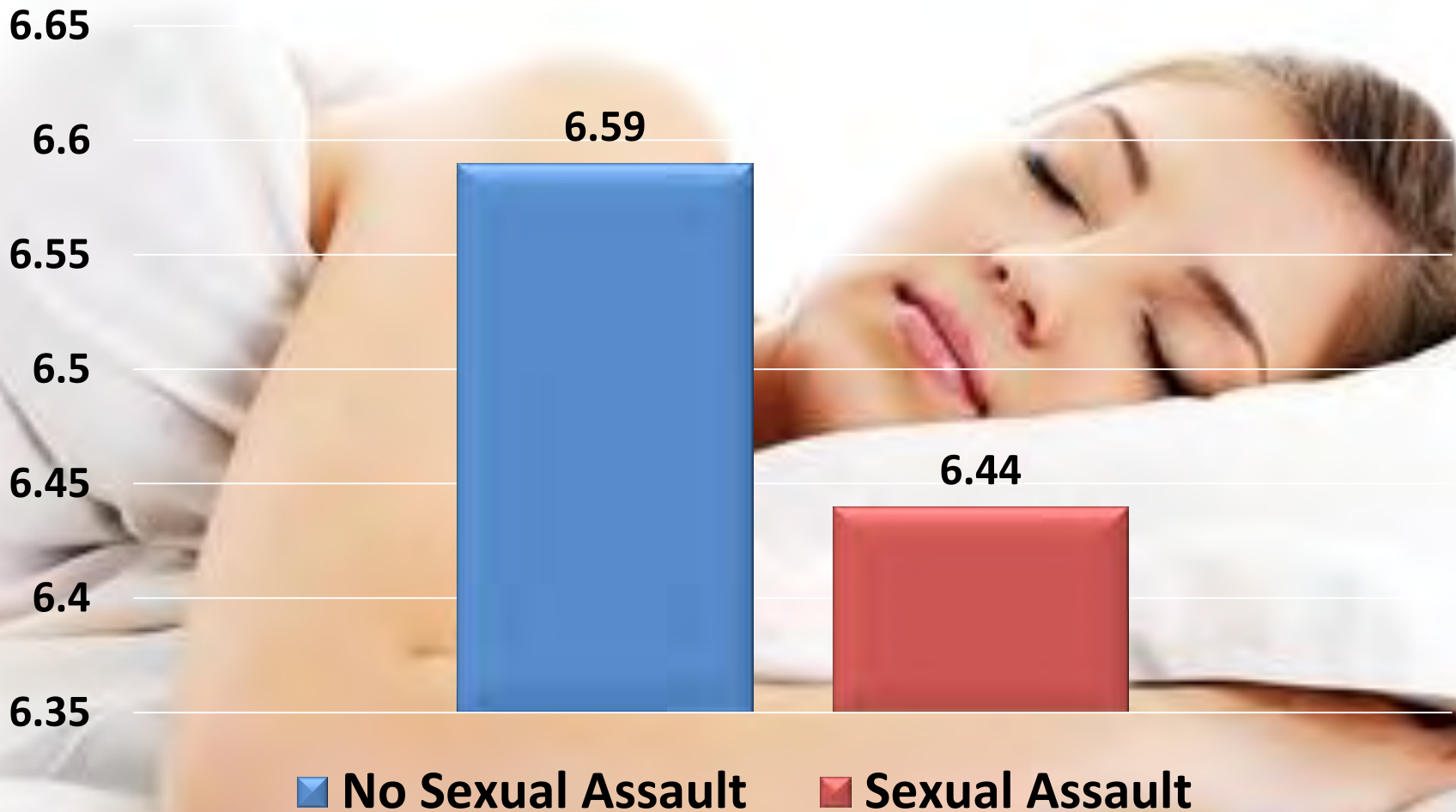
**And 2.6 times
less likely to
physically
abuse them**

Strathearn et al. 2009, *Pediatrics*, 123, 483-493

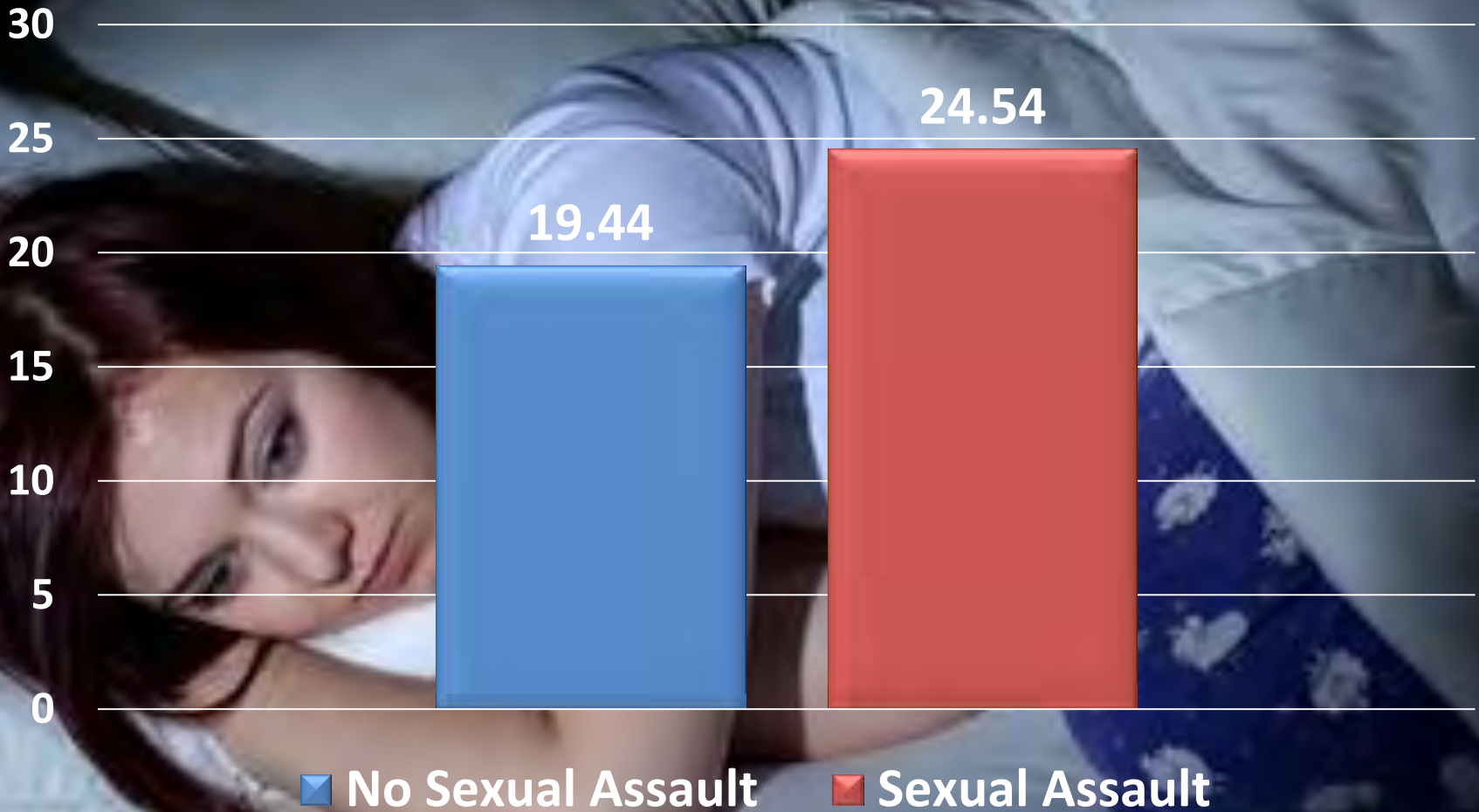


The Impact of Sexual Assault

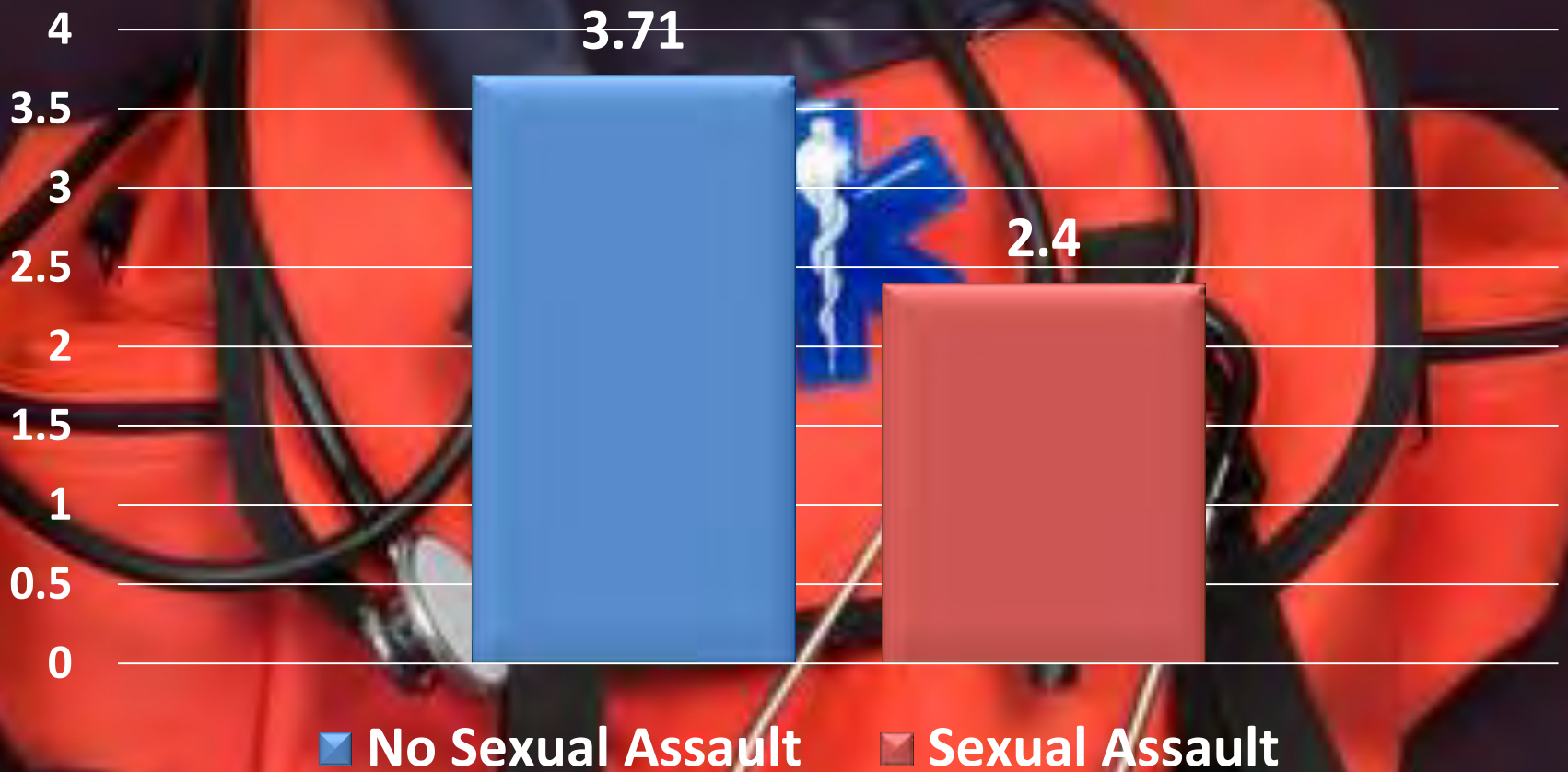
Total Sleep Time



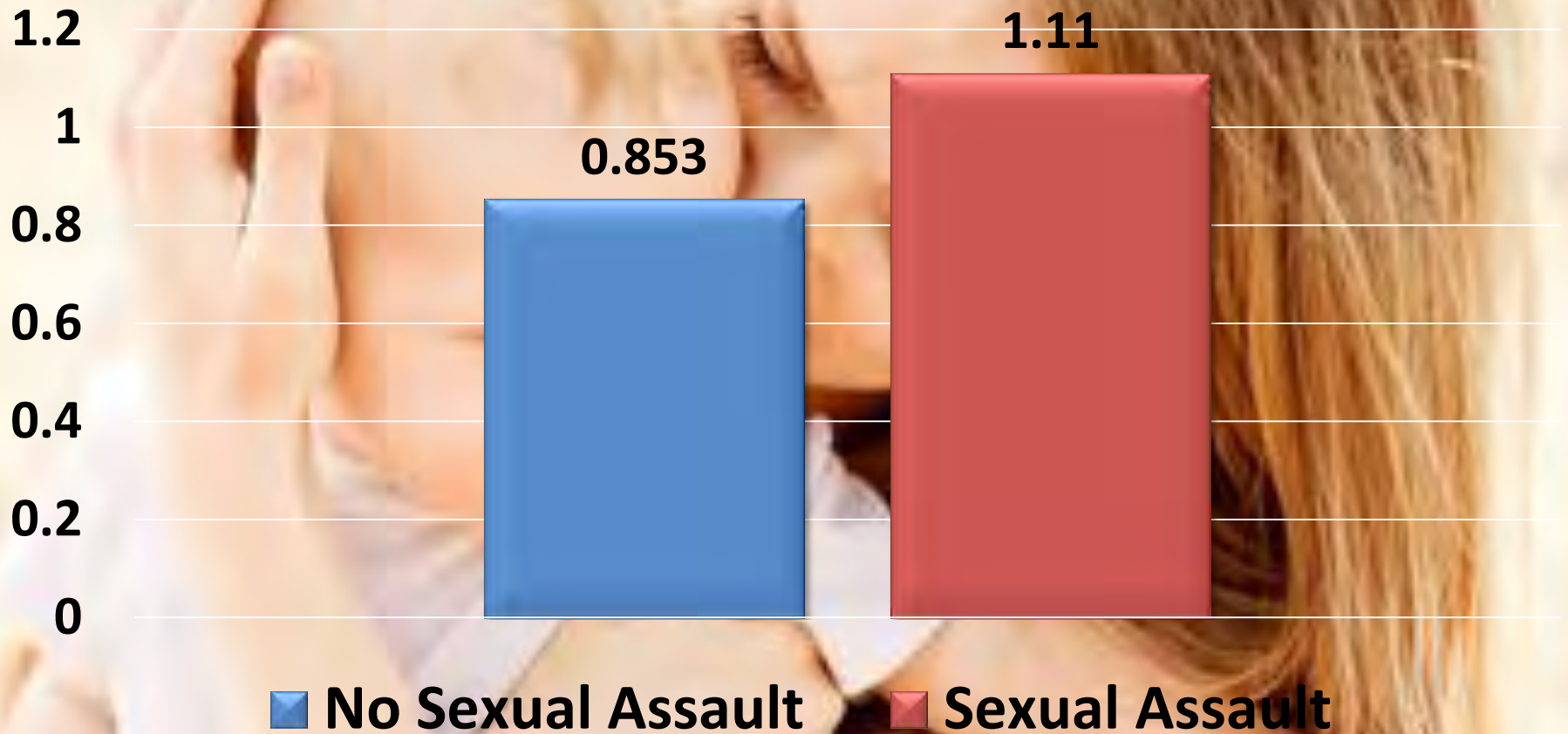
Minutes to Get to Sleep



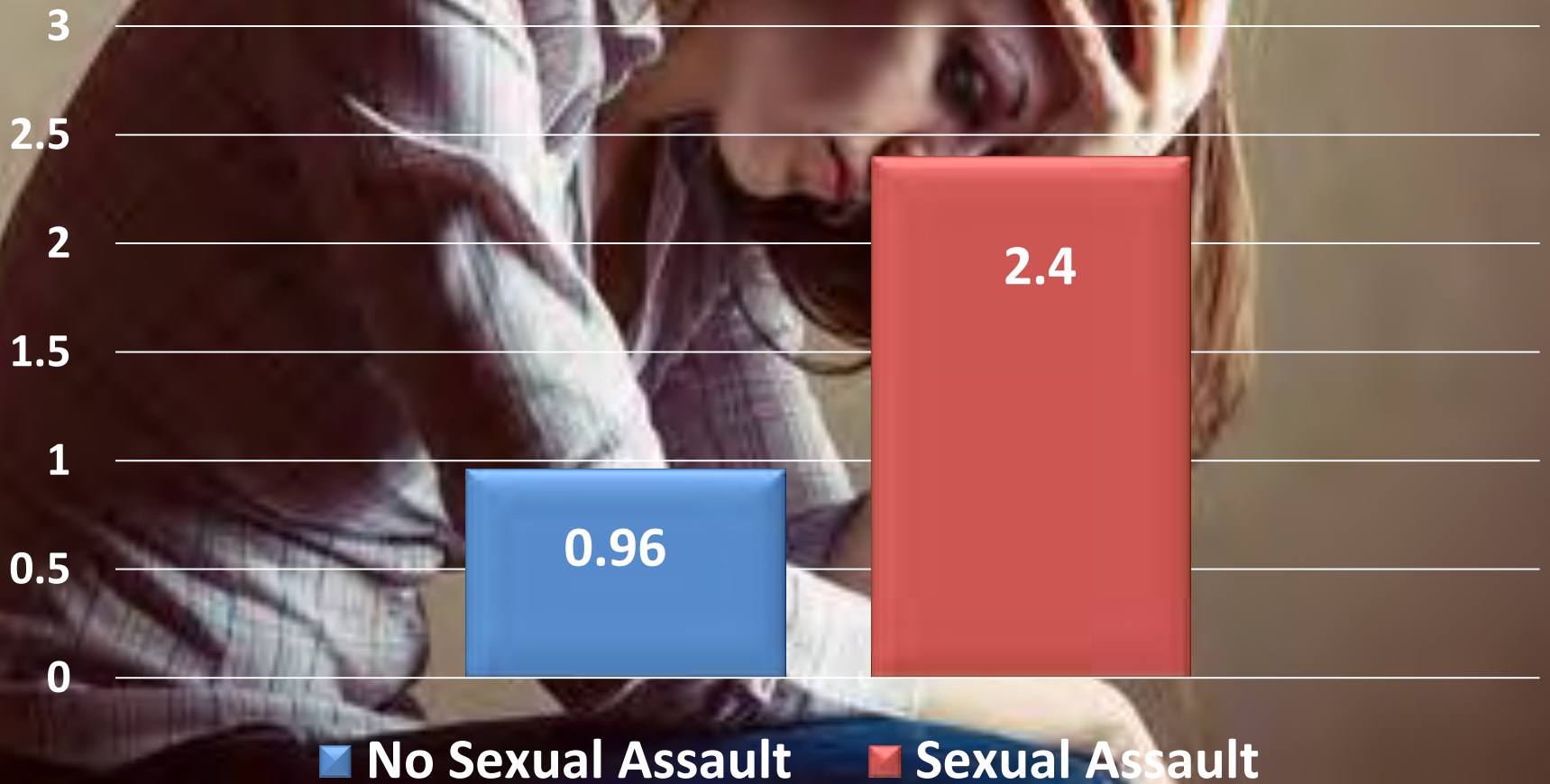
Physical Health



Current Depression



Anxiety

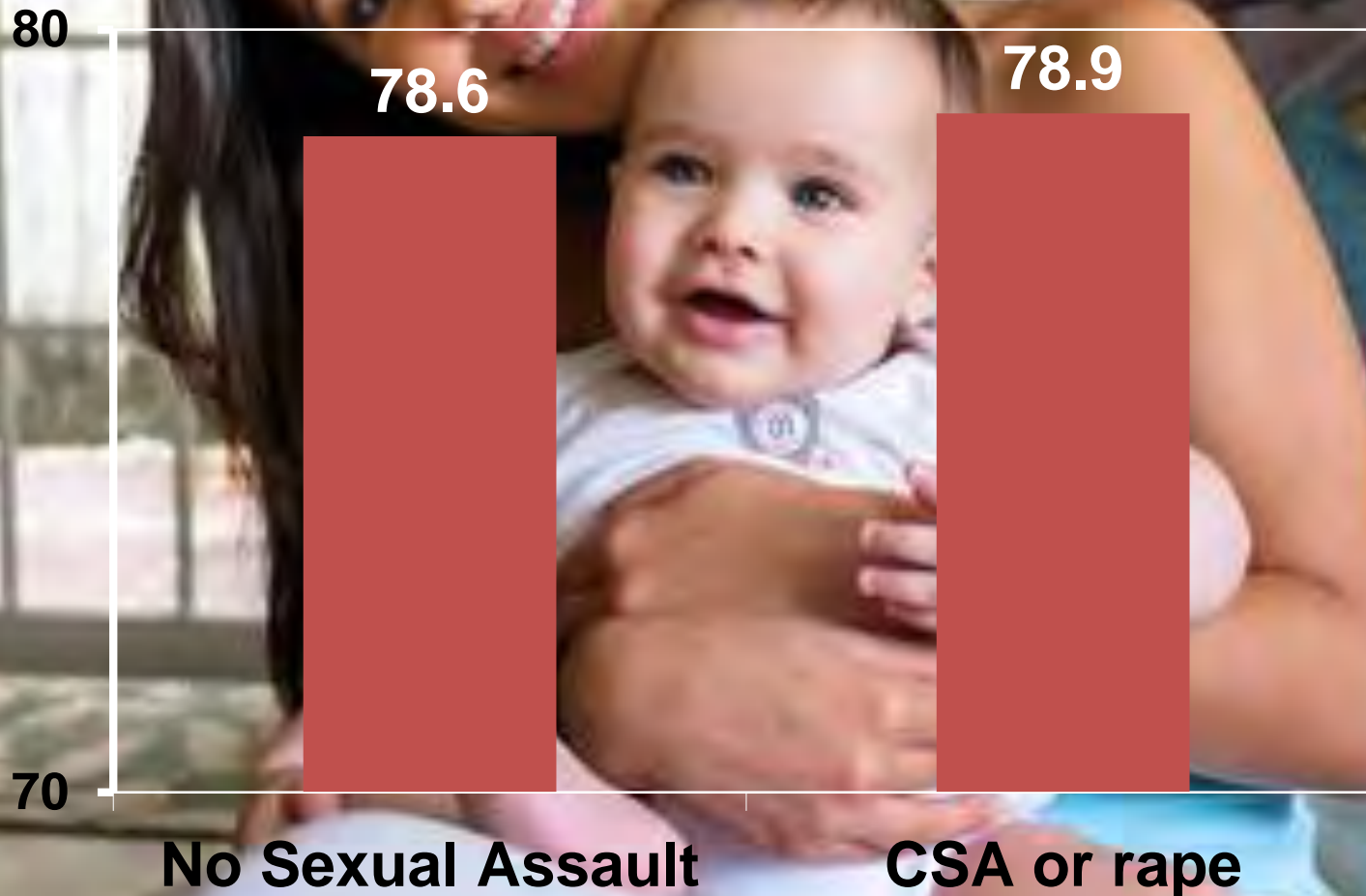




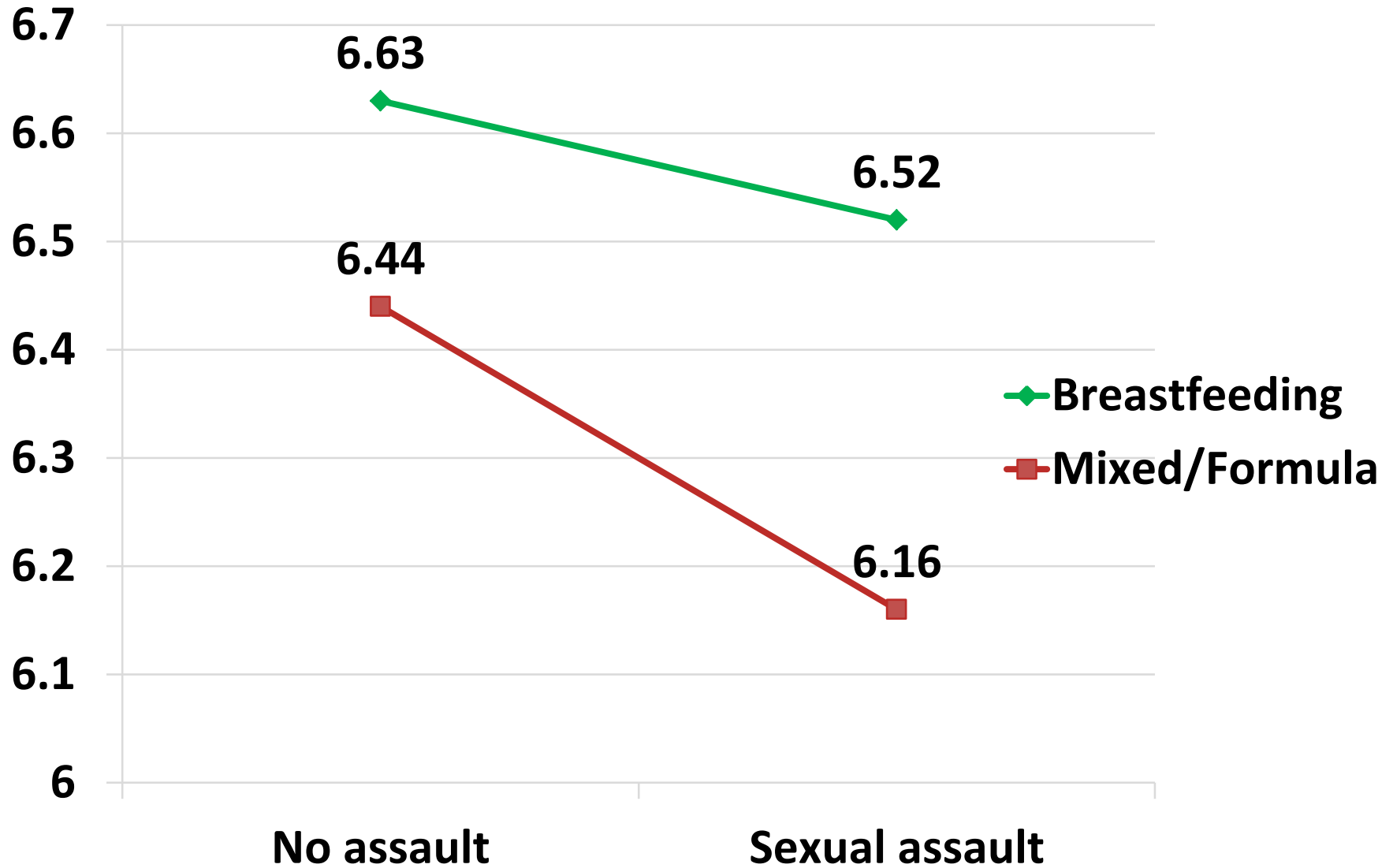
**Does breastfeeding
help these mothers?**

Percentage who are Breastfeeding

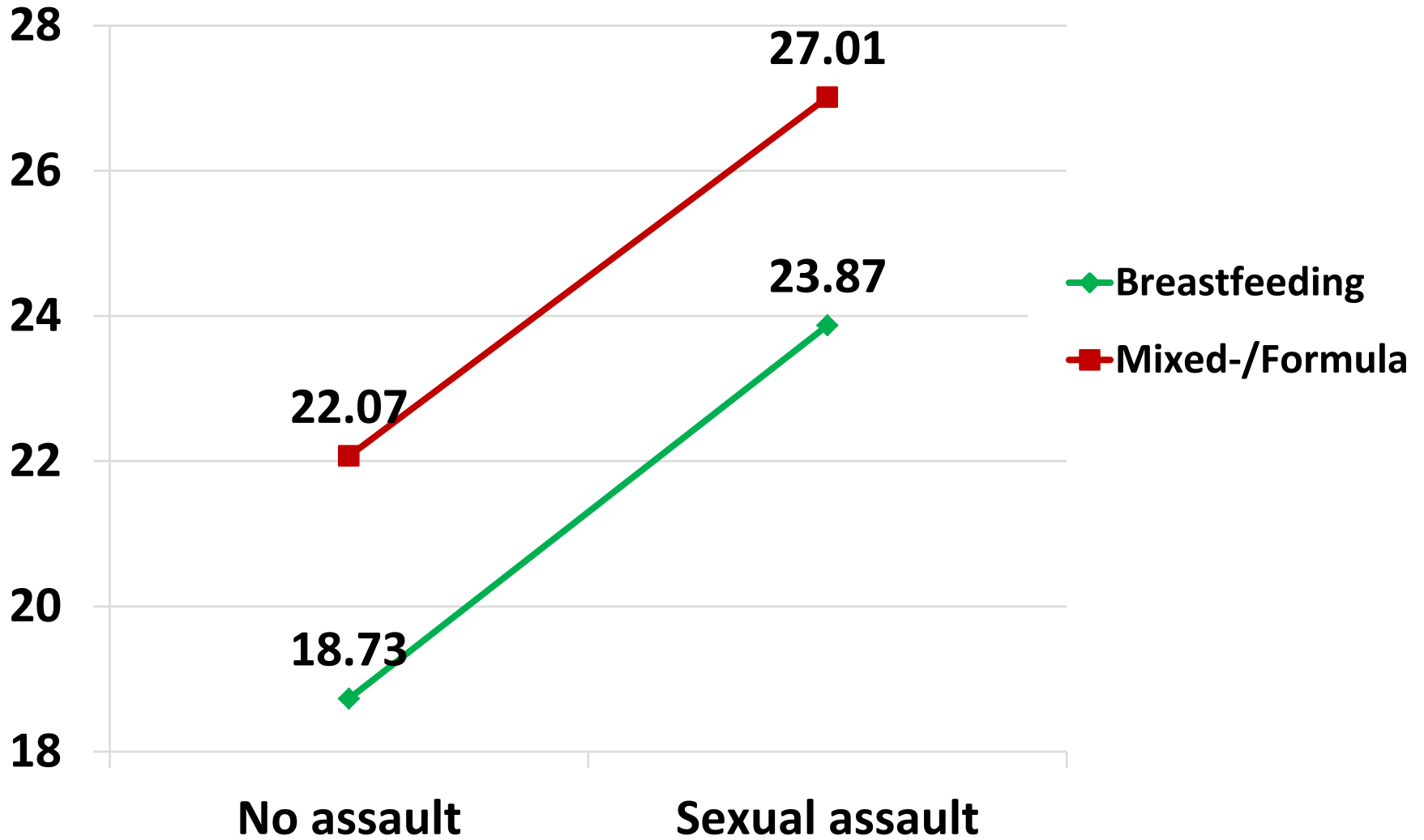
N=6,410 new mothers



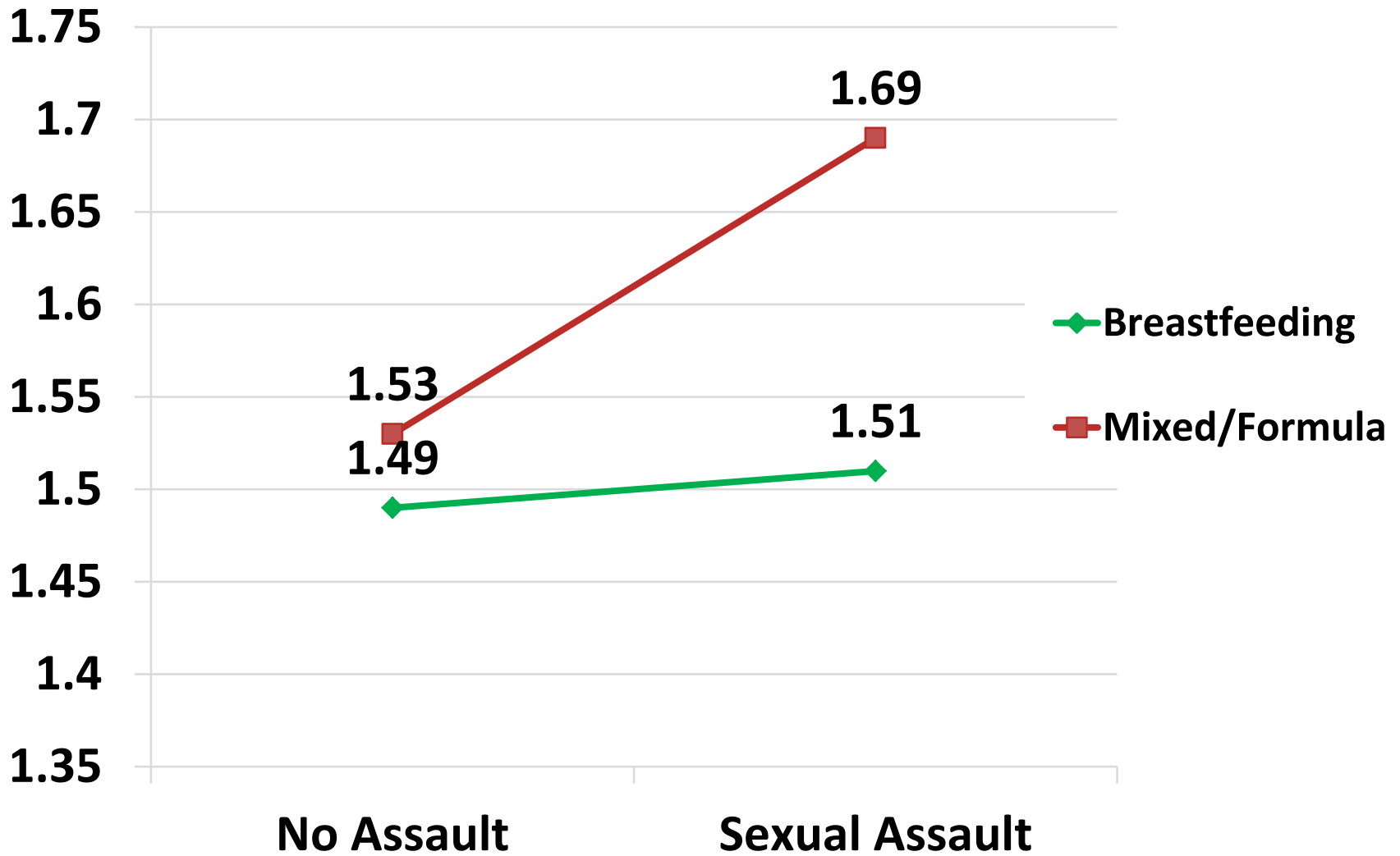
Hours Mothers Sleep



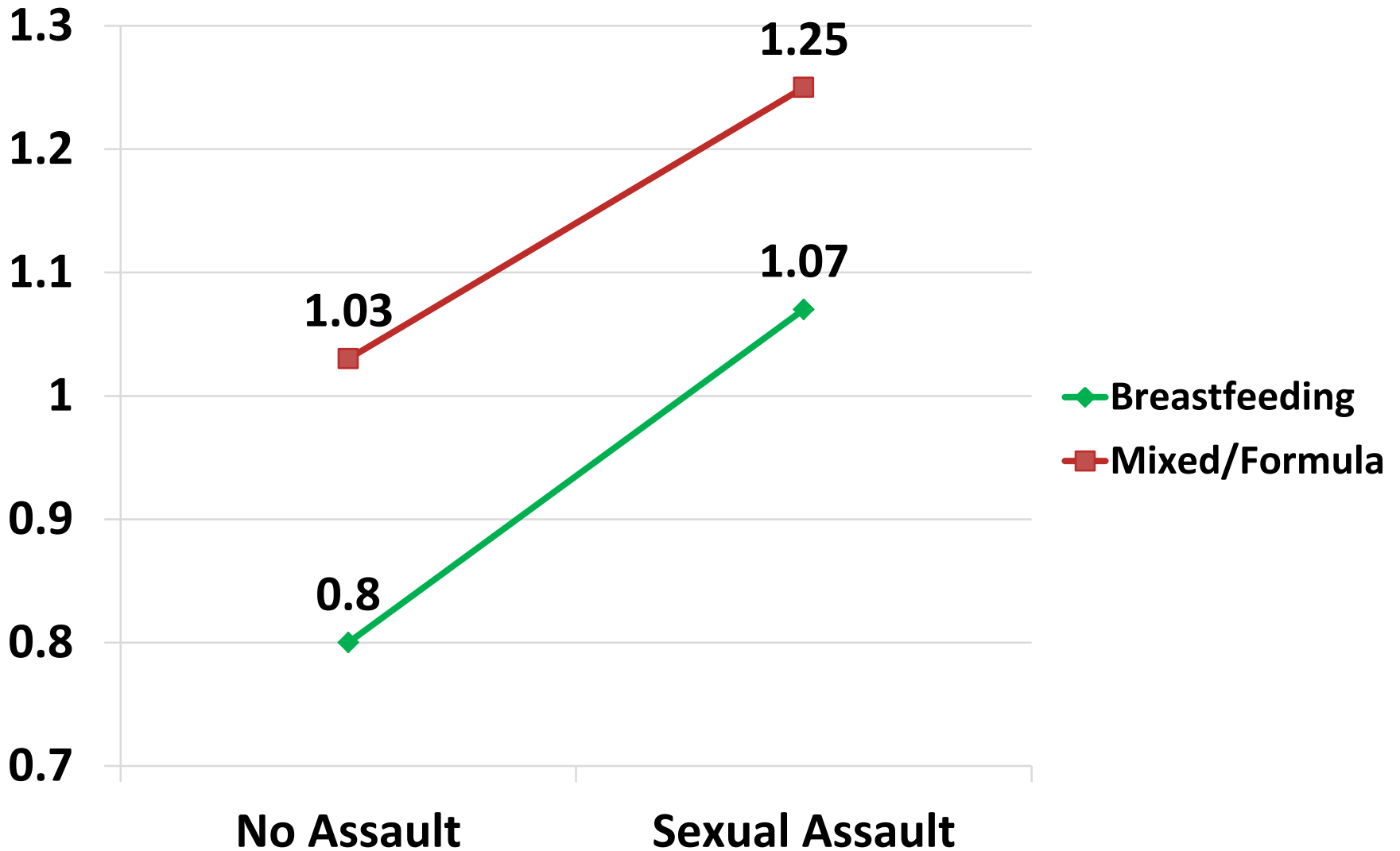
Minutes to Get to Sleep

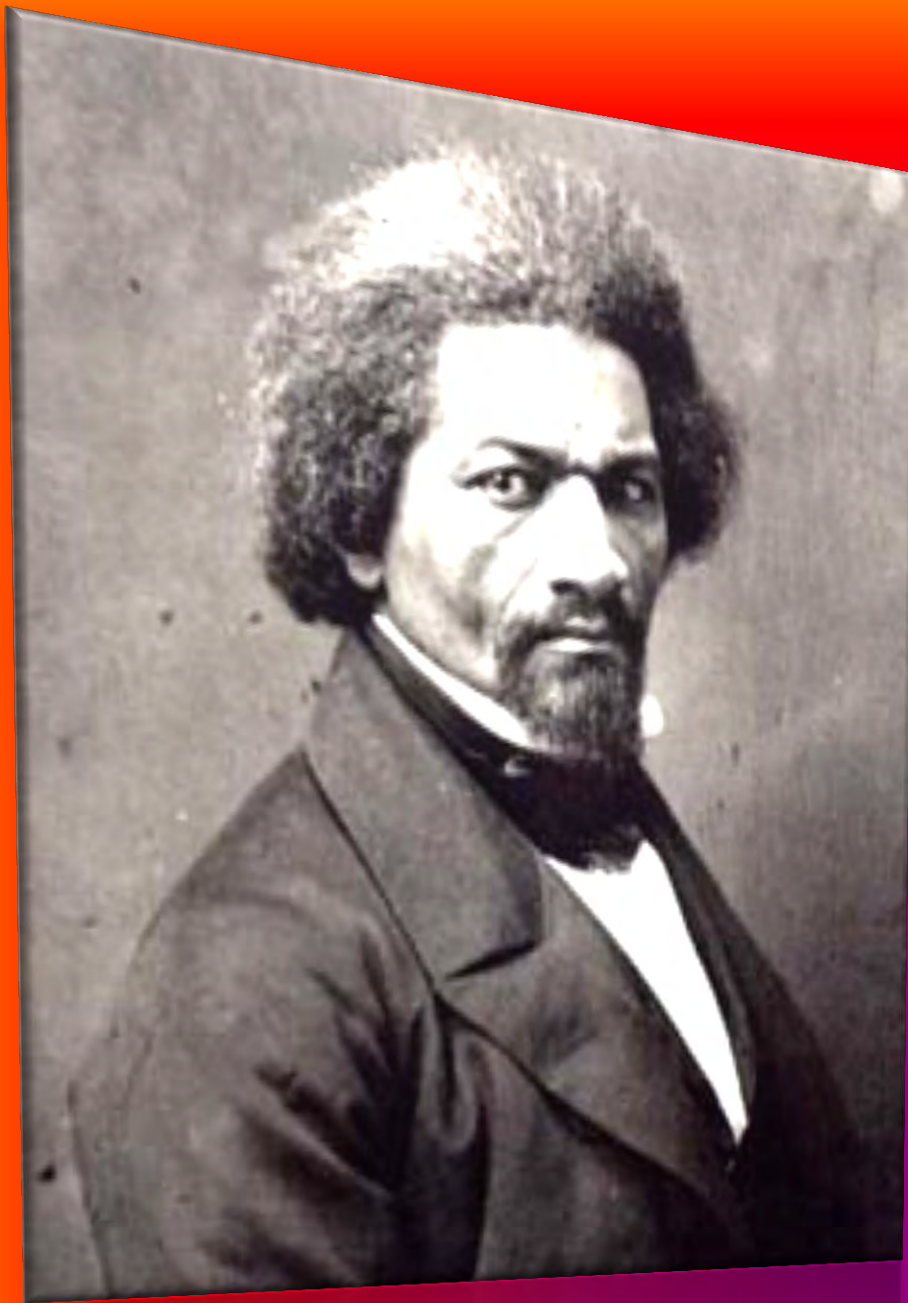


Angry or Irritable

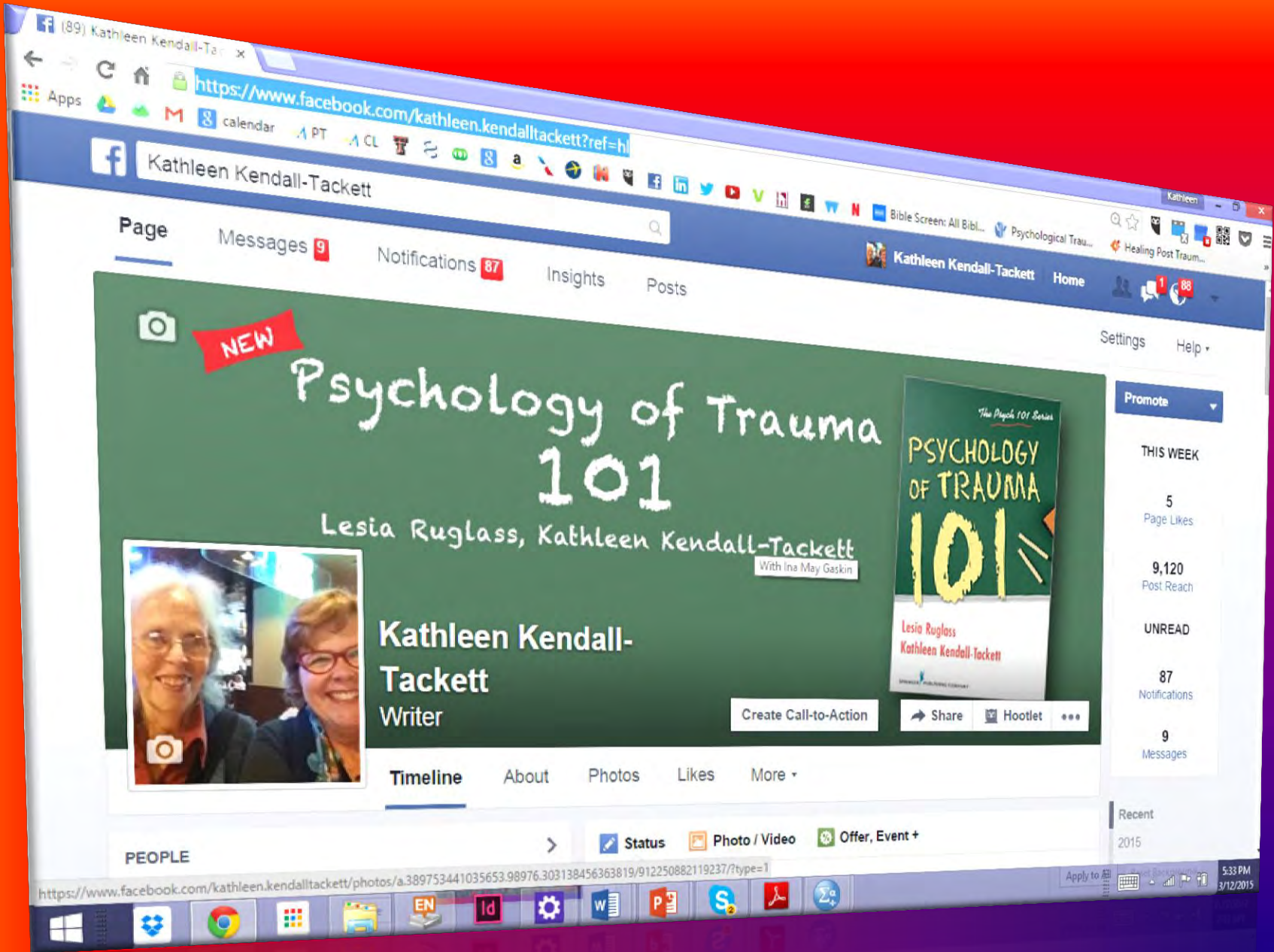


Depression





“It is easier to build strong children than repair broken men”



Kathleen Kendall-Tackett

Page Messages 9 Notifications 87 Insights Posts

Kathleen Kendall-Tackett Home

Settings Help

NEW

Psychology of Trauma 101

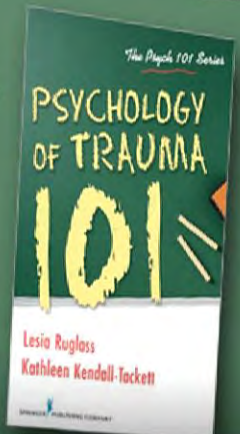
Lesia Ruglass, Kathleen Kendall-Tackett
With Ina May Gaskin



Kathleen Kendall-Tackett
Writer

Create Call-to-Action

Share Hootlet



Promote

THIS WEEK

5 Page Likes

9,120 Post Reach

UNREAD

87 Notifications

9 Messages

Timeline About Photos Likes More

PEOPLE

Status Photo / Video Offer, Event +

https://www.facebook.com/kathleen.kendalltackett/photos/a.389753441035653.98976.303138456363819/912250882119237/?type=1

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