

Child Maltreatment's Impact on Socioeconomic Status:

**Research on the Adult Outcomes of
Abuse and Neglect**

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The views presented are those of the author and do not necessarily represent those of the National Institute of Mental Health, the National Institutes of Health, or the U.S. Department of Health and Human Services.

Overview

- Introduction
- Review of Background Research
- Q & A
- Child Maltreatment – SES paper findings
- Q&A
- Implications for Policy, Services, and Future Research
- Q&A

Scope of the Problem

- In 2007, NCANDS estimated 3.2 million referrals, involving the alleged maltreatment of approximately 5.8 million children, to CPS agencies.
- 61.7% of referrals were screened in for investigation.
- 25.2% percent of the investigations found at least one child as a victim of abuse or neglect (~800K children).
- ~75% of victims had no prior history of child maltreatment.

Mental Health Outcomes

- Depression
- PTSD/Anxiety Disorders
- Antisocial Personality Disorder
- Substance Addiction/Abuse

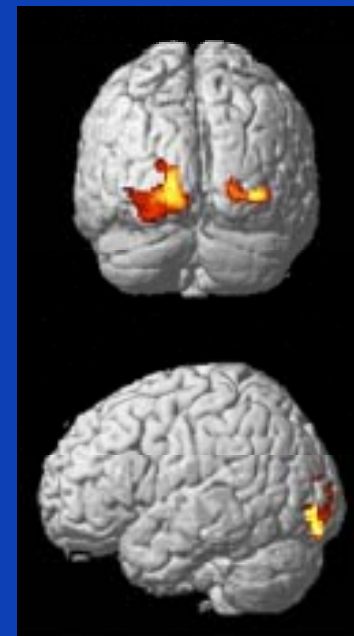
Physical Health Outcomes

Childhood Sexual Abuse Is Associated with Reduced Gray Matter Volume in Visual Cortex of Young Women

Akemi Tomoda, Carryl P. Navalta, Ann Polcari, Norihiro Sadato, and Martin H. Teicher

BIOL PSYCHIATRY 2009;66:642–648

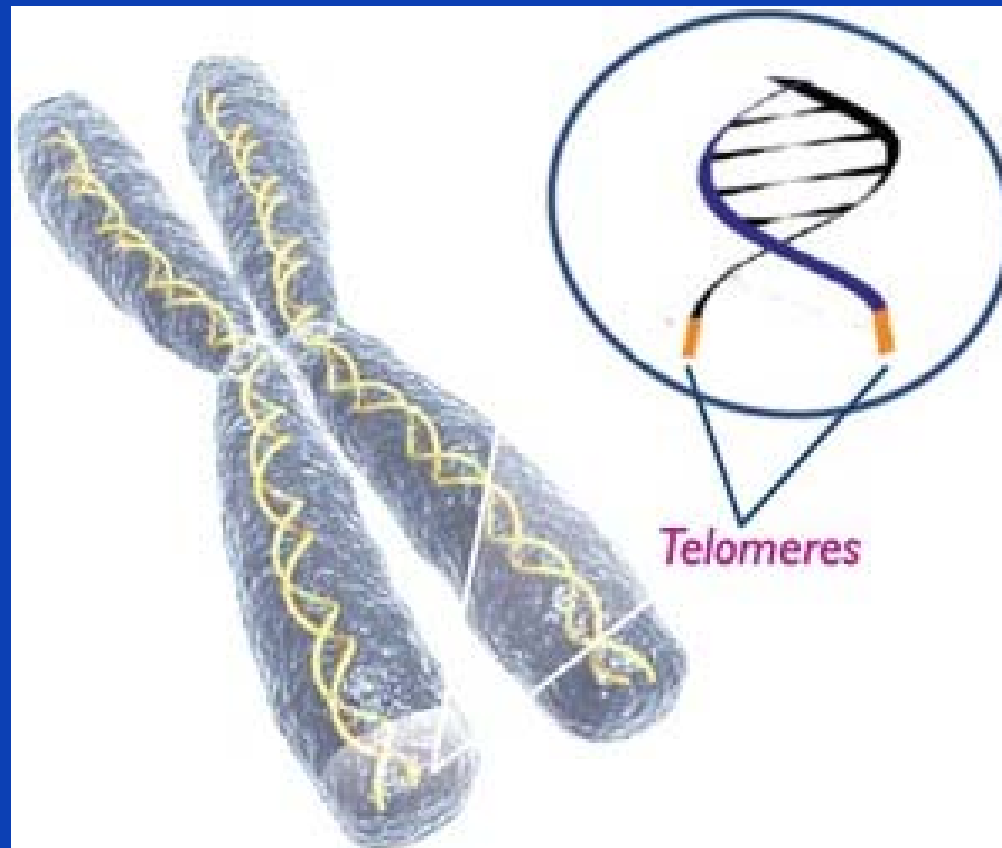
- Sex abuse before age 12 associated with:
 - 12.6% less gray matter volume in right visual cortex
 - 18.1% less gray matter volume in left visual cortex
- Gray matter volume in V1 was related to measures of visual memory



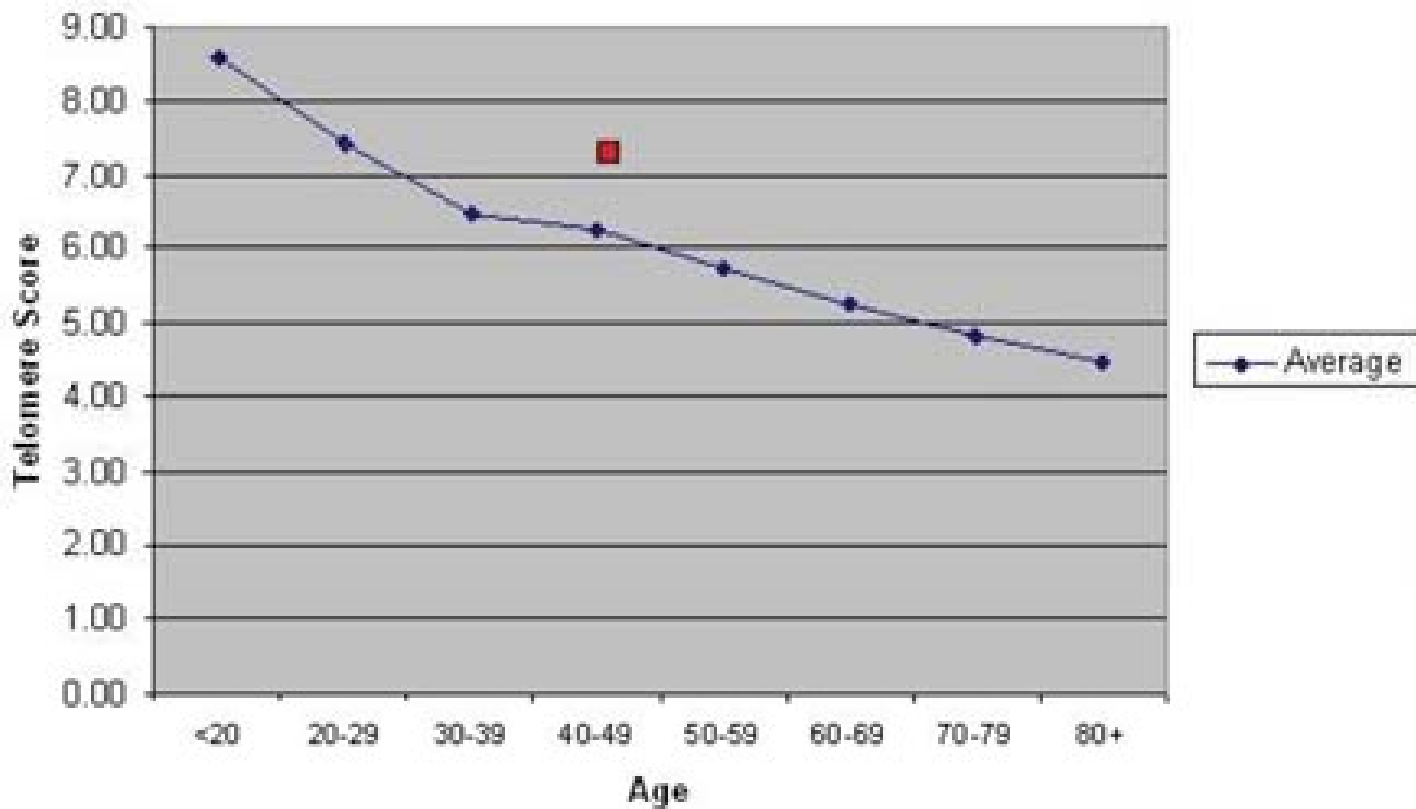
Childhood Maltreatment and Telomere Shortening: Preliminary Support for an Effect of Early Stress on Cellular Aging

Audrey R. Tyrka, Lawrence H. Price, Hung-Teh Kao, Barbara Porton, Sarah A. Marsella, and
Linda L. Carpenter

BIOL PSYCHIATRY 2010;67:531-534



Sample
Telomere Graph



Educational Outcomes

Childhood maltreatment and college drop-out rates.

Duncan, R. D. (2000). *Journal of Interpersonal Violence*, 15, 987-995.

Maltreatment, Competency Deficits, and Risk for Academic and Behavioral Maladjustment

Shonk & Cicchetti *Developmental Psychology*, 37(1), 2001

School Performance Trajectories After the Advent of Reported Maltreatment

Leiter *Children and Youth Services Review*, 29(3), 2007

School Performance and Disciplinary Problems Among Abused and Neglected Children

John Eckenrode, Molly Laird, and John Doris

Developmental Psychology
1993, Vol. 29, No. 1, 53–62

Sample of ~840 K-12 Children

Neglect most associated with lower test scores/grades

Physical abuse associated with disciplinary action

Sexual abuse alone not directly associated with either

Journal of Interpersonal Violence

Childhood Maltreatment and College Drop-Out Rates

Implications for Child Abuse Researchers

RENAE D. DUNCAN

Journal of Interpersonal Violence, Vol. 15, No. 9, 987-995 (2000)

210 college freshman followed for 4 years

By end of senior year:

35% of students w/ multiple types of CAN enrolled

50% of students w/ sexual abuse alone enrolled

60% of students w/o CAN enrolled

Labor Economics Research

Individual-Level Indicators of Employment/Income:

- Level of Education

Behrman, Hrubec, Taubman, & Wales (1980)

- Physical Health

- Physical Health Problems (Generally)

Kessler, Greenberg, Mickelson, Meneades, & Wang (2001)

- Psychopathology

- Depression

Stewart, Ricci, Chee, Hahn, & Morganstein (2003)

- Antisocial Personality Disorder

Mitchell (1992)

- Substance Addiction/Abuse

Harwood, Fountain, & Livermoore (1998)

- PTSD

McCarren, Janes, Goldberg, Eisen, True, & Henderson (1995)

**What Research has Examined the
Maltreatment – SES
Relationship?**

The Economic Consequences of Child Sexual Abuse for Adult Lesbian Women

BATYA HYMAN

Department of Social Work, College of Human Services, Arizona State University West

Journal of Marriage and the Family 62 (February 2000): 199–211

Sample of ~1900 adult lesbian women

Significant relationship between CAN and later income

No controls for childhood SES

Violence in the Transition to Adulthood: Adolescent Victimization, Education, and Socioeconomic Attainment in Later Life

Ross Macmillan
University of Minnesota

John Hagan
Northwestern University and University of Toronto

JOURNAL OF RESEARCH ON ADOLESCENCE, 14(2), 127–158

Large longitudinal study

Adolescent victimization associated with:

- Double the likelihood of being unemployed**
- 65% greater risk for being on public assistance**

Questions?
Thoughts?

National Comorbidity Survey

- Probability Subsample of 5877 Completed Part II
 - Marriage and Family
 - Employment & Income
 - Health
 - Life Events (including abuse and neglect)
- Physical Abuse
 - *Frequently* hit, beaten, bitten, kicked, choked, burned or scalded or otherwise abused during childhood
- Sex Abuse
 - *Ever* sexually molested or raped before age 18
- Severe Neglect

National Comorbidity Survey

- Socioeconomic Variables of Interest
 - Employment
 - Employment Status, Recent Family Job Loss
 - Income
 - Family Gross Income, Poverty Level
 - Health Insurance
 - Medicaid, Any Health Insurance

National Comorbidity Survey

Final Sample:

- 5877 Completed Parts I & II
- Excluded
 - Under Age 18 and Students (n=724)
 - Cases with Missing IVs and DVs (n=149)
- Final Sample Size 5004

Table 1

Percent reporting child maltreatment by demographic characteristic.

Variable	n (%) ^a	Any maltreatment (n = 691)	Sexual abuse ^b (n = 401)
		%	%
All	5004 (100)	13.8	8.0
Sex			
Male	2479 (49.5)	8.5	2.7
Female	2525 (50.5)	19.0	13.3
Race			
European-American	3852 (77.0)	14.3	8.3
African-American	562 (11.2)	11.0	6.7
Other	590 (11.8)	13.2	7.5
Age			
18–24	742 (14.8)	14.0	7.5
25–34	1712 (34.2)	14.1	8.6
35–44	1587 (31.7)	12.3	6.3
45–54	963 (19.2)	15.6	10.2
Marital status			
Married/cohabitating	3411 (68.2)	14.0	8.1
Separated/previously married	618 (12.4)	18.0	10.5
Not married/not cohabitating	975 (19.5)	10.4	6.2

Variable	n (%) ^a	Physical abuse (n = 334)	Severe neglect (n = 145)	Multiple types (n = 159)
		%	%	%
All	5004 (100)	6.7	2.9	3.2
Sex				
Male	2479 (49.5)	5.7	2.2	1.8
Female	2525 (50.5)	7.6	3.5	4.5
Race				
European-American	3852 (77.0)	6.9	3.1	3.3
African-American	562 (11.2)	4.6	1.3	1.7
Other	590 (11.8)	7.5	3.1	3.9
Age				
18–24	742 (14.8)	7.5	3.0	3.7
25–34	1712 (34.2)	7.2	2.7	3.7
35–44	1587 (31.7)	6.4	2.8	2.7
45–54	963 (19.2)	5.5	3.2	2.6
Marital status				
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Not married/not cohabitating	975 (19.5)	5.2	2.0	2.6

Data Analysis

Key Points on Logistic Regression:

- Indicates likelihood in comparison to a “base” category
- Odds ratio; Based on 1.0
- Allows for models that include covariates

Data Analysis

Covariates:

- Demographic Variables
 - Age, Sex, Race, Marital Status, Number of Children, Home Maker Status, Urbanicity, Nativity
- Childhood Socioeconomic Status
 - Childhood Caregivers' Education, Occupation, Industry of Employment & Self-Rated Childhood SES
- Number of Traumatic Life Events
 - Age 18 and Over
 - e.g., Life Threatening Accidents, Natural Disasters, Sexual/Physical Assault, Witness to Violence
- For Each Individual Type of Maltreatment, the Other Two Types Were Controlled

SES Findings for Any Maltreatment

Table 3
Adult socioeconomic well-being among victims and non-victims of child maltreatment.

Dependent variable	Did not report maltreatment (%)	Reported maltreatment (%)	Odds ratio (95% CI)
Employment			
Unemployed	5.7	8.7	2.0 (1.5, 2.8) ^{***}
Family job loss	18.3	30.7	1.8 (1.5, 2.2) ^{***}
Income (total family)			
Below poverty level	8.7	17.3	2.2 (1.7, 2.8) ^{***}
\$0–19,999	22.0	33.0	1.8 (1.5, 2.2) ^{***}
\$20,000–34,999	25.9	21.7	0.8 (0.6, 0.9) ^{**}
\$35,000–69,999	37.9	32.6	0.8 (0.7, 1.0) [*]
>\$70,000	14.2	12.6	1.0 (0.7, 1.2)
Health insurance			
Medicaid	3.9	9.4	2.2 (1.6, 3.2) ^{***}
Any health insurance	86.6	83.3	0.8 (0.6, 1.0) [*]

SES Findings for Sex Abuse

Table 4
Adult socioeconomic well-being among victims and non-victims of child sexual abuse.

Dependent variable	Did not report sexual abuse (%)	Reported sexual abuse (%)	Odds ratio (95% CI)
Employment			
Unemployed	6.0	6.6	1.2 (0.7, 1.8)
Family job loss	19.2	30.1	1.5 (1.1, 1.9)**
Income (total family)			
Below poverty level	9.2	17.8	1.8 (1.3, 2.5)***
\$0-19,999	22.4	35.8	1.9 (1.5, 2.6)***
\$20,000-34,999	25.9	18.9	0.7 (0.5, 0.9)**
\$35,000-69,999	37.6	32.0	0.8 (0.6, 1.0)
>\$70,000	14.1	13.3	1.1 (0.8, 1.5)
Health insurance			
Medicaid	4.2	10.1	1.8 (1.2, 2.8)**
Any health insurance	86.5	82.9	0.7 (0.5, 1.0)*

SES Findings for Physical Abuse

Table 5
Adult socioeconomic well-being among victims and non-victims of physical abuse.

Dependent variable	Did not report physical abuse (%)	Reported physical abuse (%)	Odds ratio (95% CI)
Employment			
Unemployed	5.6	12.4	2.4 (1.6, 3.6) ^{***}
Family job loss	18.9	35.4	1.8 (1.4, 2.3) ^{***}
Income (total family)			
Below poverty level	9.3	18.3	1.6 (1.1, 2.2) [*]
\$0-19,999	23.0	30.6	1.0 (0.8, 1.4)
\$20,000-34,999	25.2	27.1	1.1 (0.8, 1.4)
\$35,000-69,999	37.5	32.4	1.0 (0.8, 1.3)
>\$70,000	14.3	9.9	0.9 (0.6, 1.4)
Health insurance			
Medicaid	4.4	9.2	1.7 (1.1, 2.8) [*]
Any health insurance	86.5	82.0	0.9 (0.7, 1.3)

SES Findings for Severe Neglect

Table 6
Adult socioeconomic well-being among victims and non-victims of severe neglect.

Dependent variable	Did not report severe neglect (%)	Reported severe neglect (%)	Odds ratio (95% CI)
Employment			
Unemployed	5.9	11.3	1.5 (0.8, 2.8)
Family job loss	19.5	38.1	1.6 (1.1, 2.3)*
Income (total family)			
Below poverty level	9.5	22.0	1.9 (1.1, 3.0)*
\$0-19,999	23.1	38.5	1.8 (1.2, 2.7)**
\$20,000-34,999	25.2	28.2	1.2 (0.8, 1.8)
\$35,000-69,999	37.5	26.5	0.6 (0.4, 1.0)*
>\$70,000	14.2	6.7	NA
Health insurance			
Medicaid	4.6	7.5	0.9 (0.4, 1.9)
Any health insurance	86.4	80.1	0.8 (0.5, 1.3)

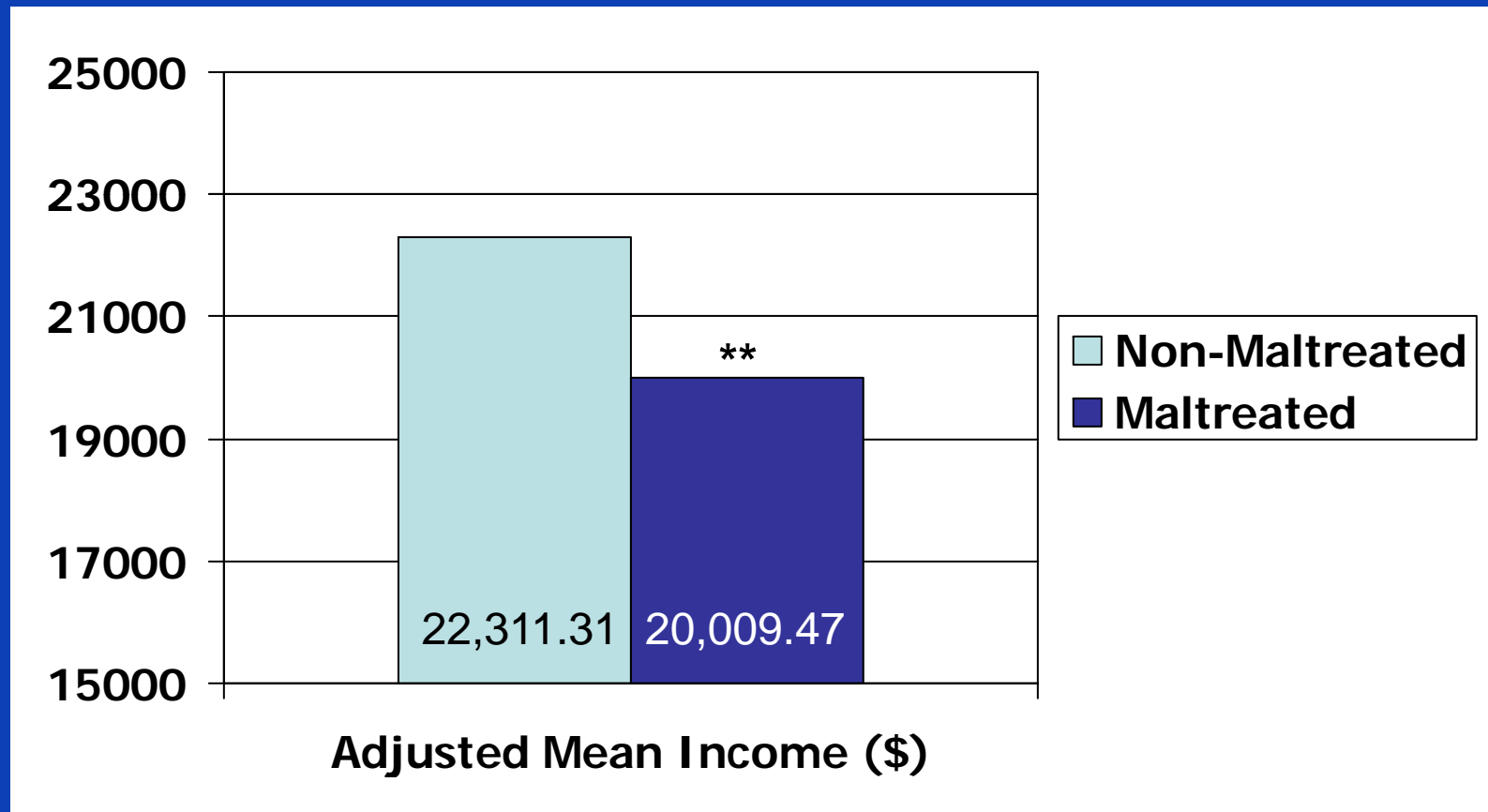
SES Findings for Multiple Types

Table 7

Adult socioeconomic well-being among victims and non-victims of multiple types of maltreatment.

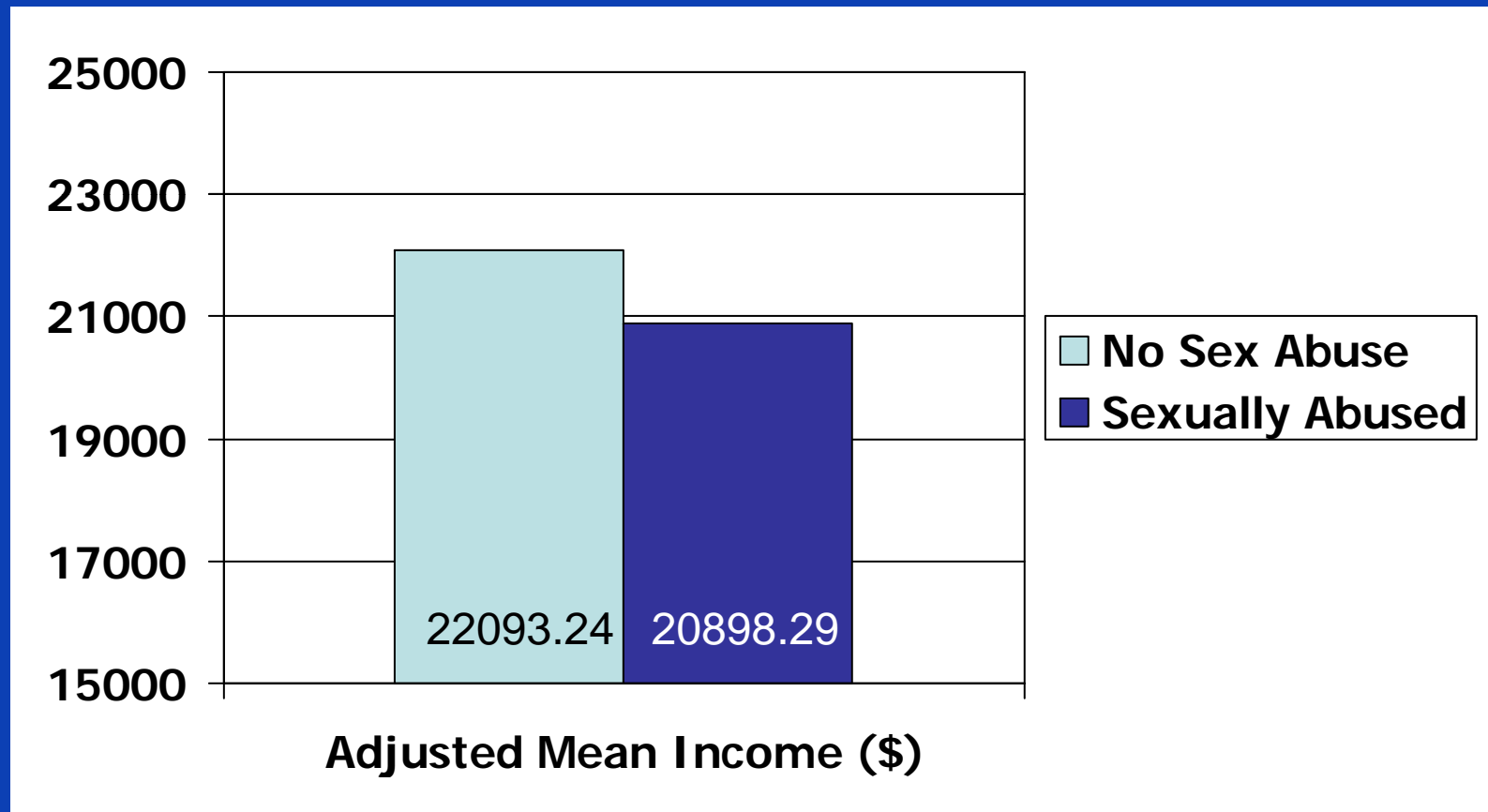
Dependent variable	Did not report multiple types (%)	Reported multiple types (%)	Odds ratio (95% CI)
Employment			
Unemployed	5.9	12.9	2.9 (1.8, 4.9) ^{***}
Family job loss	19.3	43.4	2.8 (2.0, 3.8) ^{***}
Income (total family)			
Below poverty level	9.4	24.7	2.8 (1.8, 4.2) ^{***}
\$0–19,999	23.0	39.7	1.9 (1.4, 2.8) ^{***}
\$20,000–34,999	25.2	28.3	1.1 (0.8, 1.6)
\$35,000–69,999	37.5	26.9	0.7 (0.5, 1.0)
>\$70,000	14.3	5.7	0.4 (0.2, 0.8) [*]
Health insurance			
Medicaid	4.5	10.2	1.8 (1.0, 3.2) [†]
Any health insurance	86.4	77.9	0.6 (0.4, 1.0) [†]

Adjusted Mean Personal Income: Any Maltreatment



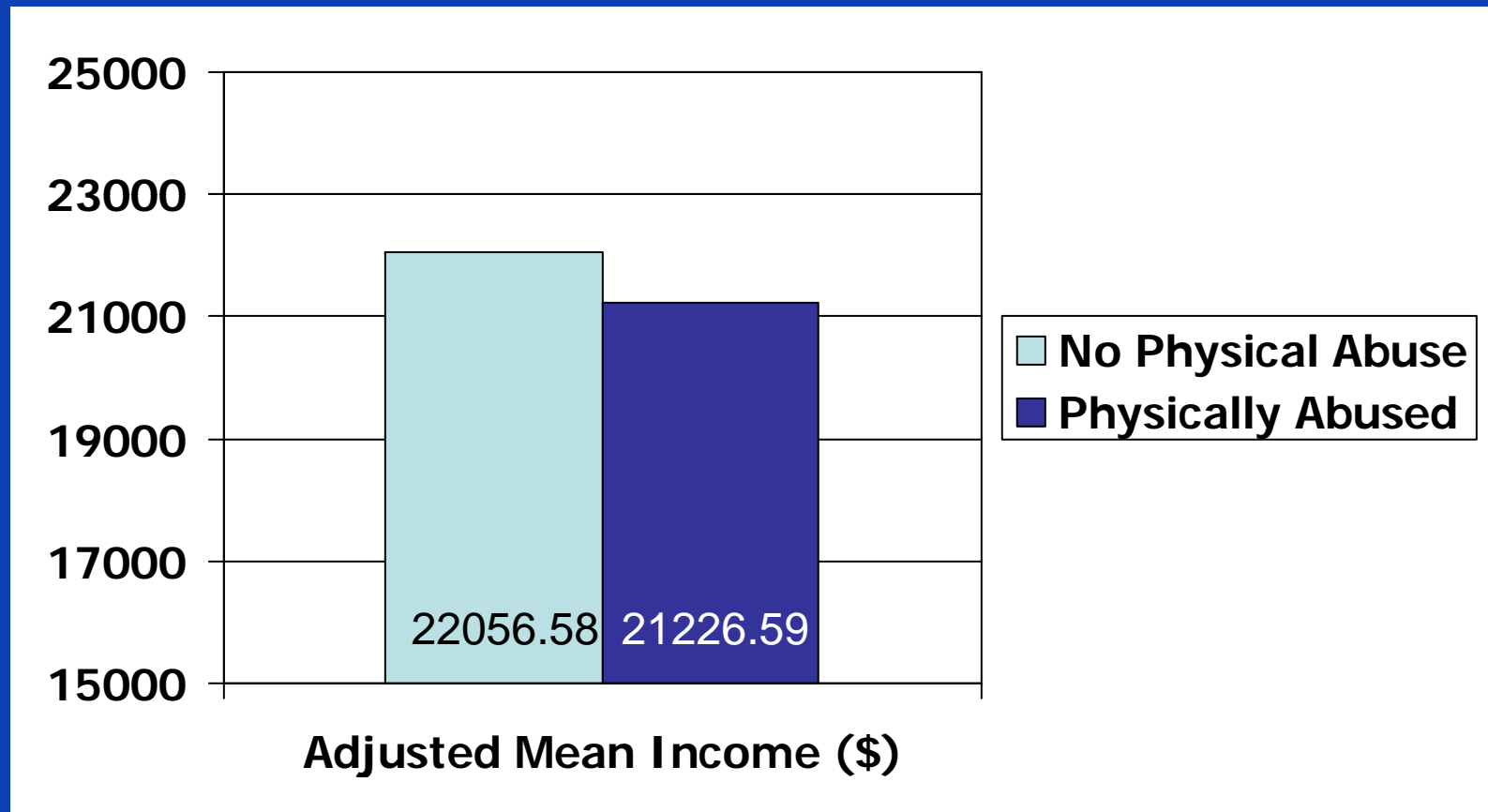
** F=9.69, df=1, p<.01

Adjusted Mean Personal Income: Sex Abuse



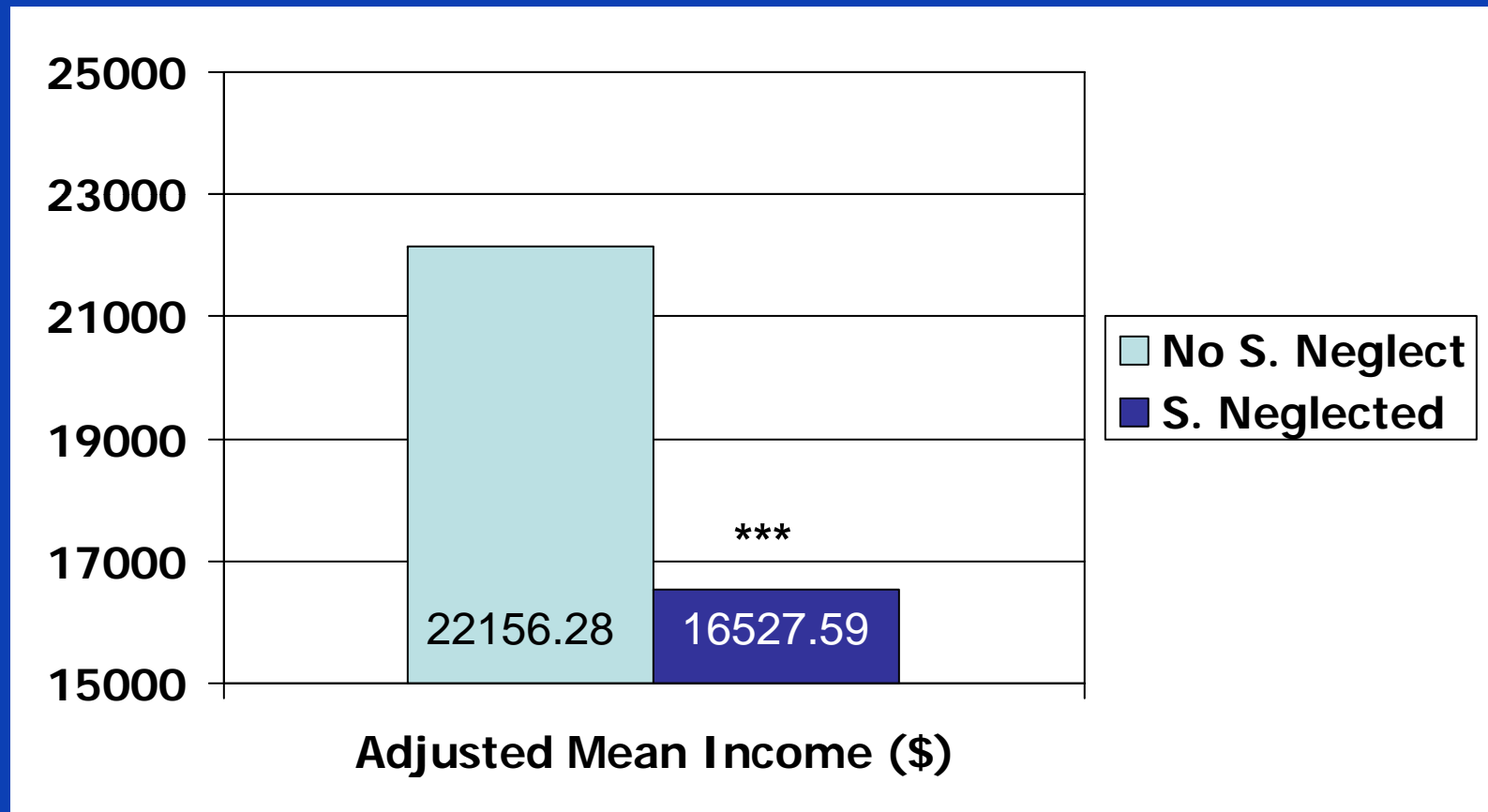
F=1.55, df=1, p=n.s.

Adjusted Mean Personal Income: Physical Abuse



F=0.61, df=1, p=n.s.

Adjusted Mean Personal Income: Severe Neglect



*** F=12.67, df=1, p<.001

Main Points

- Overall, maltreatment relates to each SES domain examined
- Sexual abuse appears relates more to family SES
- Physical abuse appears relates more to employment instability
- Neglect appears relates most to income
- Having experienced multiple types relates to all domains; strongest relationships

Questions?
Thoughts?

What Can We Do?

- PREVENTION!
- PREVENTION!!
- PREVENTION!!!
- PREVENTION!!!!

What Can We Do?

- **Family Services**
- **Educational Support**
- **Physical and Mental Healthcare**

Future Research

- Replication and Expansion
- NCS-R, NCS II
- Nurse Family Partnership

Nurse Family Partnership Trials

Elmira
Nurse Home Visitation
N=400

Memphis
Urban Replication
N=1138

Denver
Lay vs. Nurse
Home Visitors
N=735

- **15-Year Follow-up Done**
- **19-Year Follow-up Done**
- **27-Year Follow-up Done**

NFP Goals

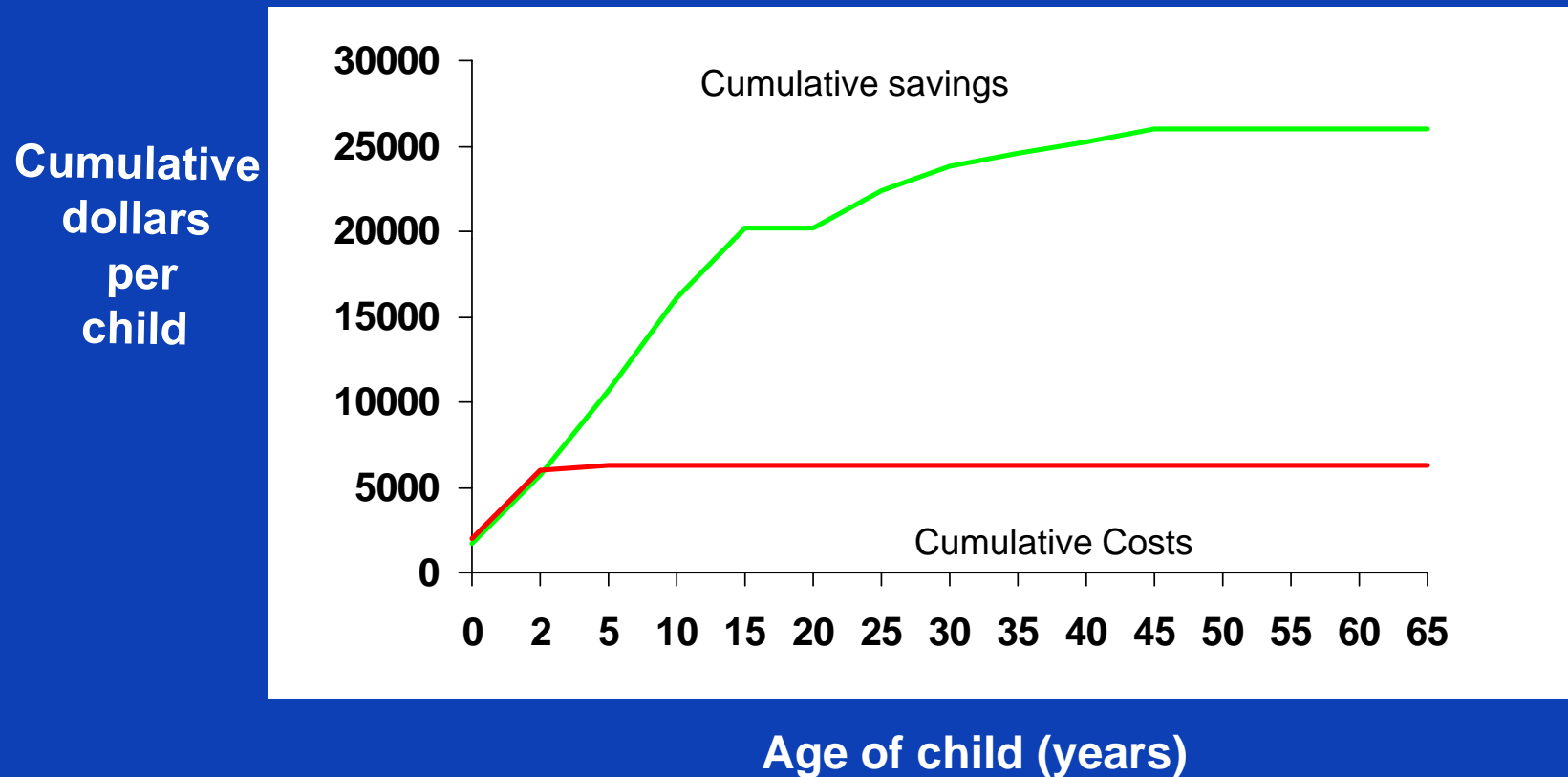
- Pregnancy Outcomes
- Child Health and Development
- Parental Life Course

Effects on Low-Income, Unmarried Mothers' Behavior Elmira: 15-Year Follow-up

- 79% fewer verified reports of child abuse and neglect
- 32% fewer subsequent births
- 30 fewer months of welfare use
- 44% fewer behavioral problems due to alcohol & drug abuse
- 69% fewer arrests

Olds, D., Eckenrode, J., Henderson, Jr. C., et al. (1997). Long-Term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect: 15-Year Follow-Up of a Randomized Trial. *JAMA*, 1997; 278: 637-643.

Cumulative Cost Savings: Elmira Home Visits (High-Risk Families)



Karoly LA, Everingham SS, Hoube J, et al. (1997). *Benefits and Costs of Early-Childhood Interventions: A Documented Briefing*. Santa Monica, Calif: RAND.

Take Home Messages

- Maltreatment has Significant Effects on the Life Course, Including Later Socioeconomic Status
- We Know What Some of the Pathways are in This Relationship – They're Actionable
- Prevention is the Best Form of Medicine

Questions?
Thoughts?

Thanks
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Zielinski, D. S. (2009). Child maltreatment and adult socioeconomic well-being. *Child Abuse & Neglect*, 33(10), 666-678.