

Implications of Severe Poly-victimization for the Mental and Cardio-metabolic Health of Intimate Partner Violence Survivors

Cari Jo Clark, Sc.D., M.P.H., University of Minnesota

Jamie L. Morrissette, BA, College of St. Scholastica

Angela Lewis-Dmello, MSW, LICSW, Domestic Abuse Project

Hannah Michel, MSW, LICSW, Domestic Abuse Project

Deena Anders, MPA, Domestic Abuse Project

Rachael A. Spencer, MPA, Independent Consultant

SVRI Forum

South Africa

September 15, 2015

Leave it on the Mat: A Study on the Impact of Yoga on Violence Survivor Well-being



Research reported in this presentation was supported by the National Center for Advancing Translational Sciences of the National Institutes of Health Award Number 8UL1TR000114-02. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. Additional support was provided by the Clinical and Translational Science Institute and the Program in Health Disparities Research, University of Minnesota.

Background

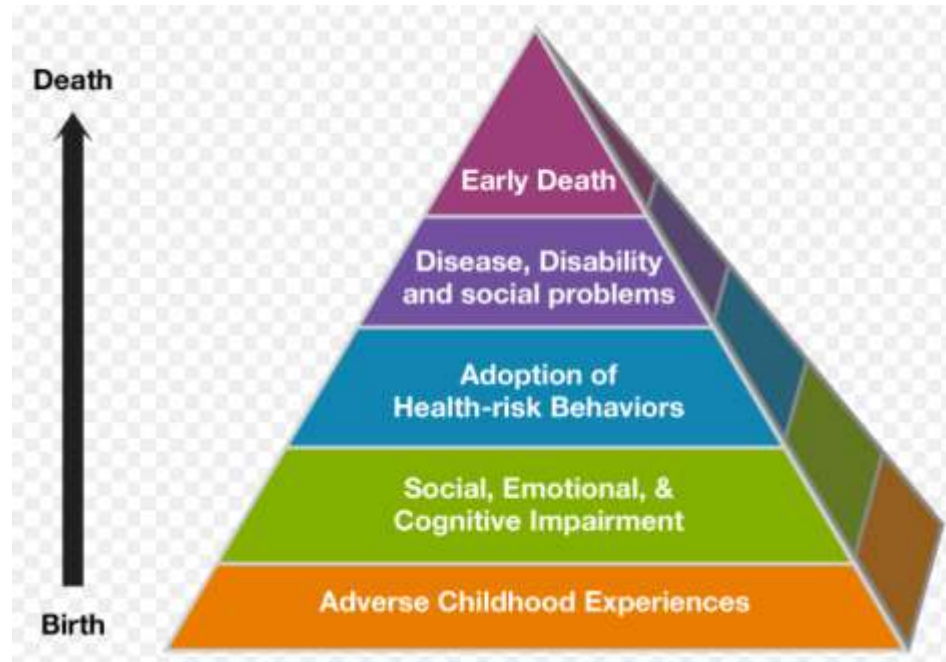
- Exposure to violence is high, especially for females
- Childhood adverse events
 - 65% of women report exposure to an ACE (ACEs)
- Physical or sexual violence and/or stalking by an intimate partner



- Repeat victimization / poly-victimization is common
 - 41% of adult women report 2+ types of victimization (ACEs)
 - 66% of youth report 2+ types of victimization (NatSCEV)

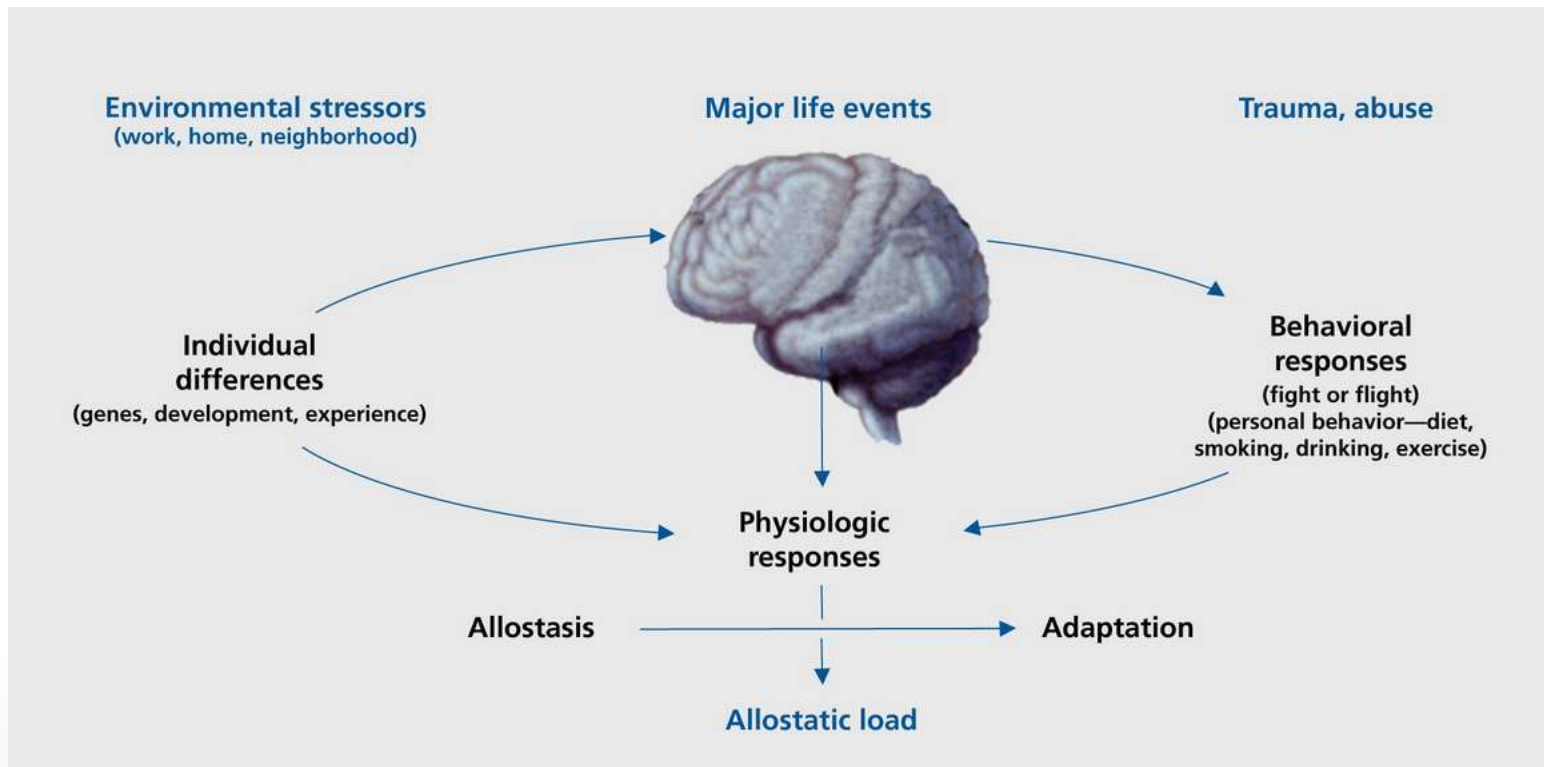
Background

- Childhood maltreatment and IPV are associated with poor health
- Mental health
 - Post traumatic stress disorder
 - Anxiety
 - Depression
- Physical health
 - Hypertension
 - Increased BMI
 - Diabetes



Background

- Interrelatedness of mental, behavioral and physical health



Sample (N=37)

Characteristic	Mean (Range) or % (#)
Age	38 (22, 64)
Greater than high school education	58% (21)
White vs. Non-white	65% (24)
Living with abusive partner	27% (9)
Study group	
-Domestic Abuse Project (Phase II)	54% (20)
-Domestic Abuse Project (Phase III)	27% (10)
-Alexandra House	19% (7)

Baseline Measurements

- Severe Poly-Victimization
 - Poly-victimization: self-report of any prior experience with violence
 - witnessing domestic violence, childhood experience of emotional abuse, physical abuse, or sexual abuse as a child or adult
 - Severe poly-victimization: 3+ prior abuse experiences
- Emotional/mental health
 - Depression: Physician's Health Questionnaire-9
 - 9-item measure ranging from (0 to 27)
 - Anxiety: State-Trait Anxiety Inventory
 - 20-item state measure ranging from (20 to 80)
 - PTSD: PTSD Checklist Civilian version
 - 17-item measure ranging from (17 to 85)

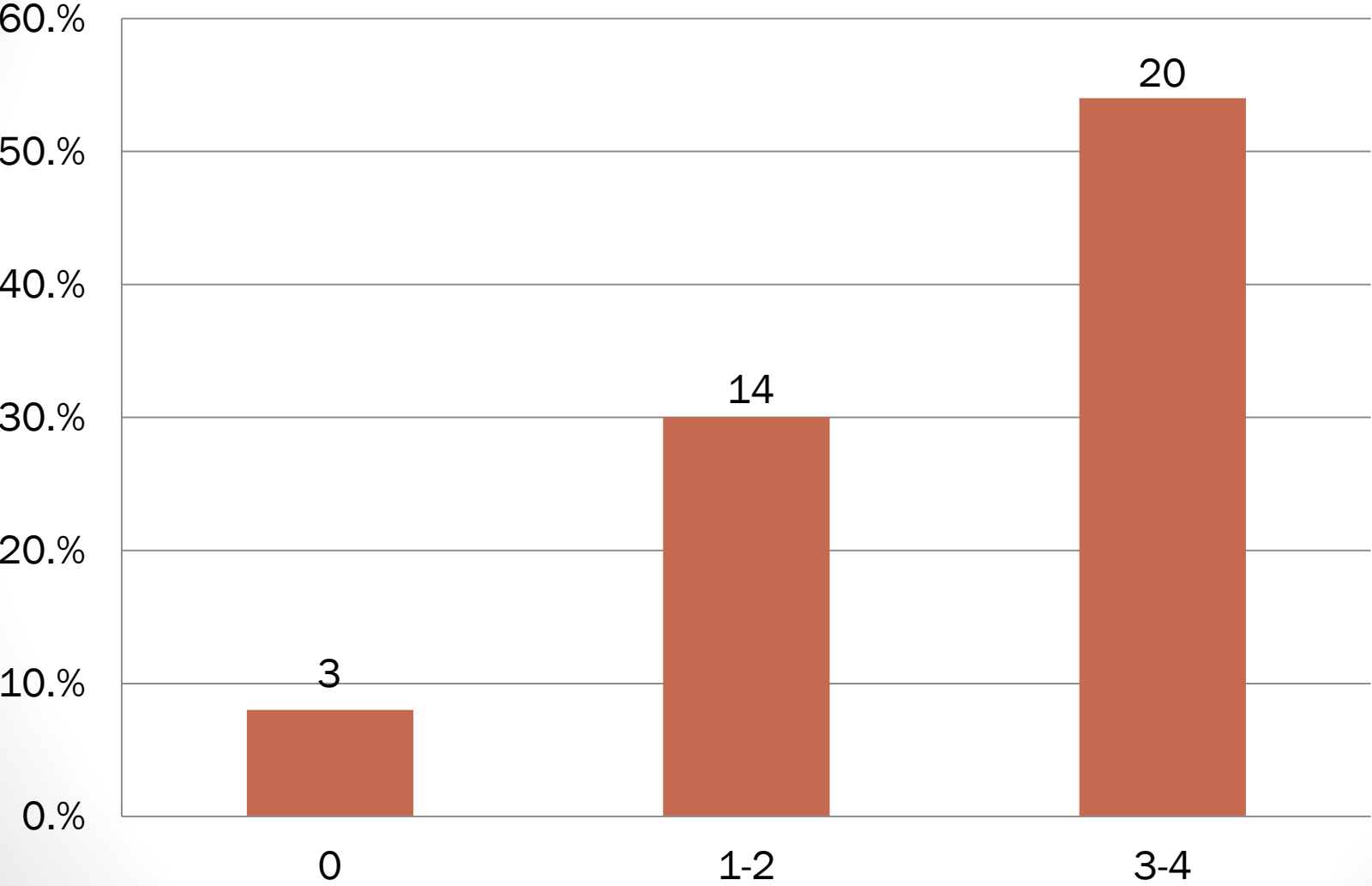
Baseline Measurements

- Behavioral and Cardio-metabolic health
 - Smoking status
 - High-sensitivity C-reactive protein: dried blood spots
 - Glycated hemoglobin (HbA1c): dried blood spots
 - Systolic blood pressure: average of three repeated measurements
 - Body mass index: calculated from measured height and weight
 - 30-Year Framingham Risk Score
 - age, sex, systolic blood pressure, BMI, smoking status, presence of diabetes, and hypertensive medication usage

Statistical Analysis

- General linear and logistic models were used to examine differences in risk of mental and physical health condition based on experience of poly-victimization.
- Age, race/ethnicity, education and group were included in the analysis as control variables in all procedures.
- All regressions were conducted using SAS software v. 9.3.

Results: Distribution by Number of ACEs



Victimization Types by Severe Poly-victimization Status

Prior victimization	Severe Poly-victimization (No=17)	Severe Poly-victimization (Yes=20)
Witness DV as a child	29%	85%
Emotionally abused as a child	26%	90%
Physically abused as a child	12%	85%
Sexually abused as a child / adult	71%	90%

Results: Outcome Variables by Severe Victimization Status

	Severe Poly-Victimization (No) (N=17)	Severe Poly-Victimization (Yes) (N=20)
	Mean (sd) or % (#)	Mean (sd) or % (#)
Anxiety	49 (12)	50 (10)
Depression	9 (6)	11 (6)
PTSD	43 (12)	49 (13)
Body Mass Index	25 (5)	30 (10)
Current Smoking	38% (6)	40% (8)
Systolic Blood Pressure	117 (12)	125 (11)
C-Reactive Protein	1 (1)	3 (2)
Hemoglobin A1c	6 (<1)	6 (1)
30-year FRS	13 (10)	29 (25)

Results: Adjusted Regression Results Comparing Severely Poly-Victimized to Not Severely Poly-Victimized

	Estimate (standard error) Odds Ratio, 95% CI	P-value
Anxiety	2.4 (4.4)	0.59
Depression	3.2 (2.6)	0.23
PTSD	11.0 (4.8)	0.03
Body Mass Index	6.3 (2.5)	0.02
Current Smoking	0.74 (0.10, 5.5)	0.77
Systolic Blood Pressure	9.4 (3.1)	0.01
C-Reactive Protein	1.6 (0.6)	0.01
Hemoglobin A1c	0.49 (0.40)	0.23
30-year FRS	11.3 (5.0)	0.03

Limitations

- Small sample size limits power to detect differences
- Associations are cross-sectional which limits causal inference
- Limited racial/ethnic diversity in the sample

Conclusions

- Poly-victimization and severe poly-victimization is common
- Severe poly-victimization is associated with conditions that are among the leading causes of death and burden of disease
- Objective measures of pathways linking violence to heart health and will serve as an objective measure of the impact of our integrative health intervention

Thank you & Contact Info

Cari Jo Clark, Sc.D., M.P.H.

717 Delaware Street, SE, Ste 166

Minneapolis, MN 55414

612.625.8849

cjclark@umn.edu