Models of First Responder Coping:
Police officers as a unique population

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First Responders

Emergency/Disaster Workers

Law enforcement officers/Police (861,000 in the U.S.)

Firefighters (1,100,000)

EMT

Coast Guard

Military

Job-Derived Risk Factors

- ❑ Critical incidents
  - ▪ **Threats and violence:**
    - ▫ Self, partner & family
  - ▪ **Experiences:**
    - ▫ Domestic violence
    - ▫ Dead child
  - ▪ **High-intensity activities:**
    - ▫ Car chases

- ❑ Organizational stressors

- ❑ Low level, chronic stressors
  - ▪ Extended hours & shift work
  - ▪ Work-life balance
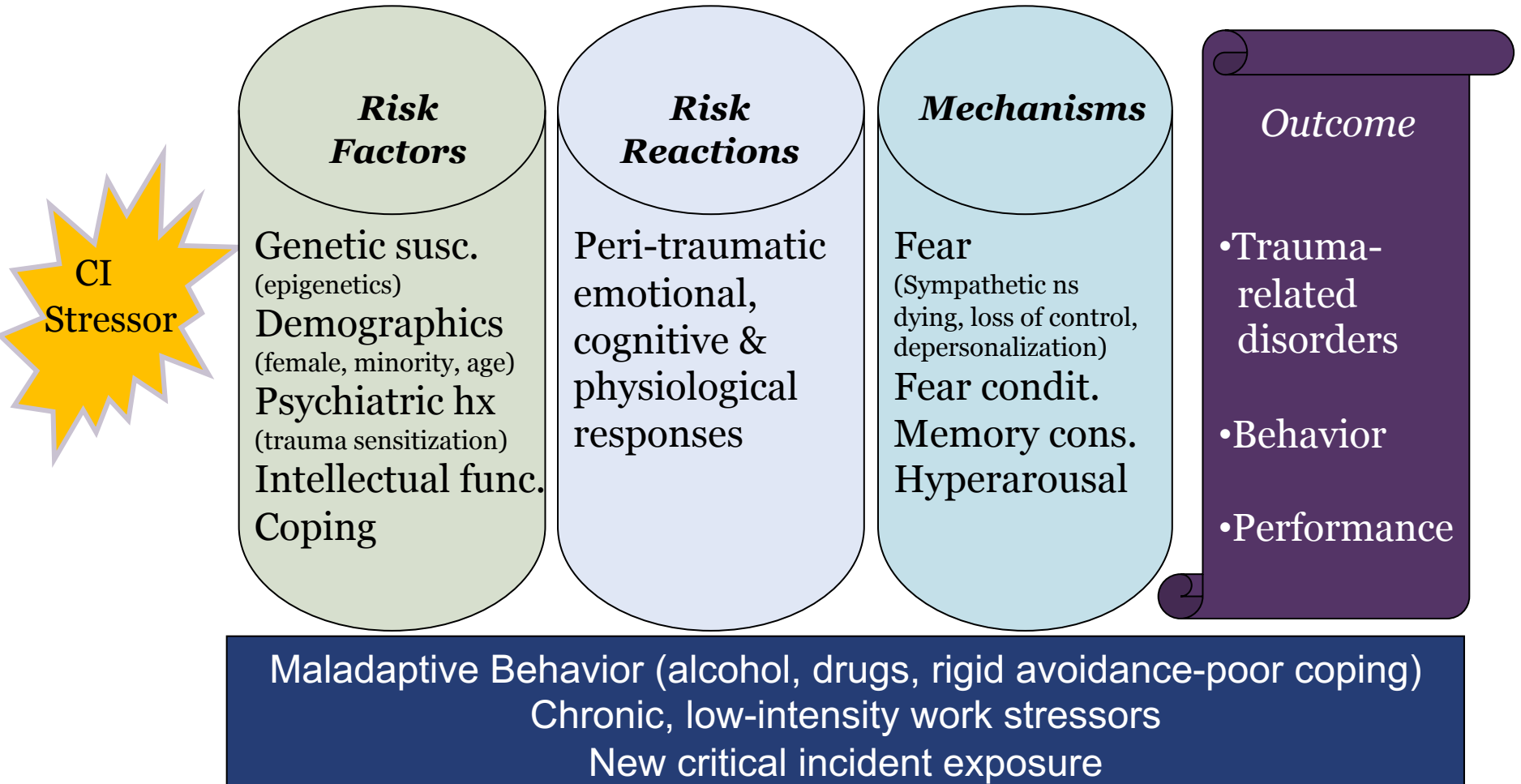
Professionally-Induced Stressors

Non-Life Threatening

- ❑ Preparing for & thinking about possibly experiencing threatening events in the future

- ❑ Not really knowing how well a colleague or a team would function during close calls

- ❑ Gender-related discrimination

- ❑ Long hours of no activities

Stressor – PTSD Model
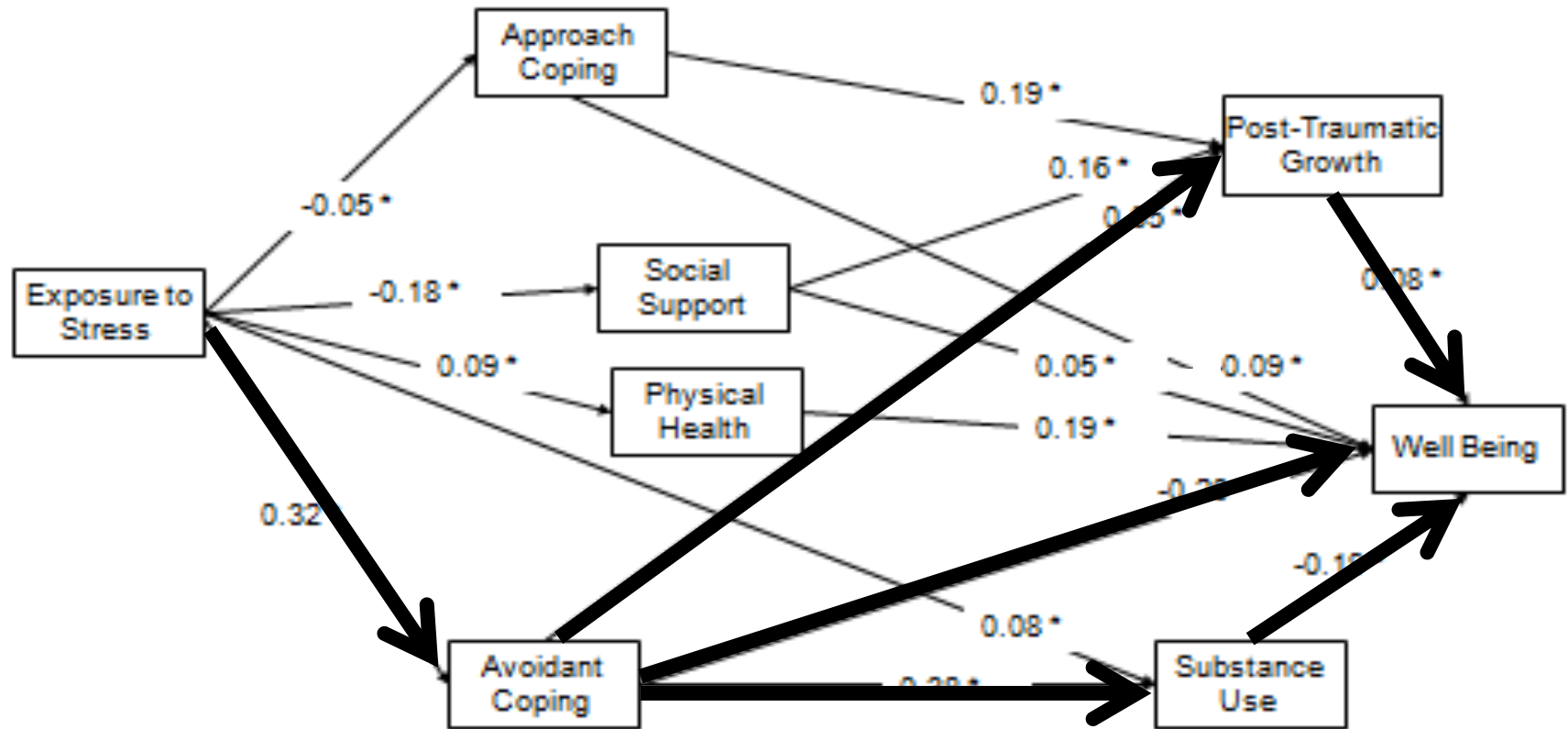
Personal and Environmental Resources

CI Stressor

Risk Factors

Genetic susc. (epigenetics)
Demographics (female, minority, age)
Psychiatric hx (trauma sensitization)
Intellectual func.
Coping

Risk Reactions

Peri-traumatic emotional, cognitive & physiological responses

Mechanisms

Fear (Sympathetic ns dying, loss of control, depersonalization)
Fear condit.
Memory cons.
Hyperarousal

Outcome

• Trauma-related disorders

• Behavior

• Performance

Maladaptive Behavior (alcohol, drugs, rigid avoidance-poor coping)
Chronic, low-intensity work stressors
New critical incident exposure

Large-Scale Observational Study

Agency	Number Solicited	Number Responding	Response Rate
Fire Department	840	380	45%
Coast Guard	424	248	58%
Military	2554	1594	62%
Police	1624	922	57%
Customs	778	559	70%
Total	6240	3703	59%

Arble E., Arnetz BB. 2015. *Stress Health, 33:* 223-32.

Outcomes in First Responders

Avoidant Coping in response to stress decreases well-being

EXCEPT when it leads to post-traumatic growth that fosters well-being

Arble E., Arnetz BB. 2015. *Stress Health, 33*: 223-32.

Police as a Unique Group

155 deaths/year

100,000 injured/year

22% on-duty deaths CVD

Common hazards:
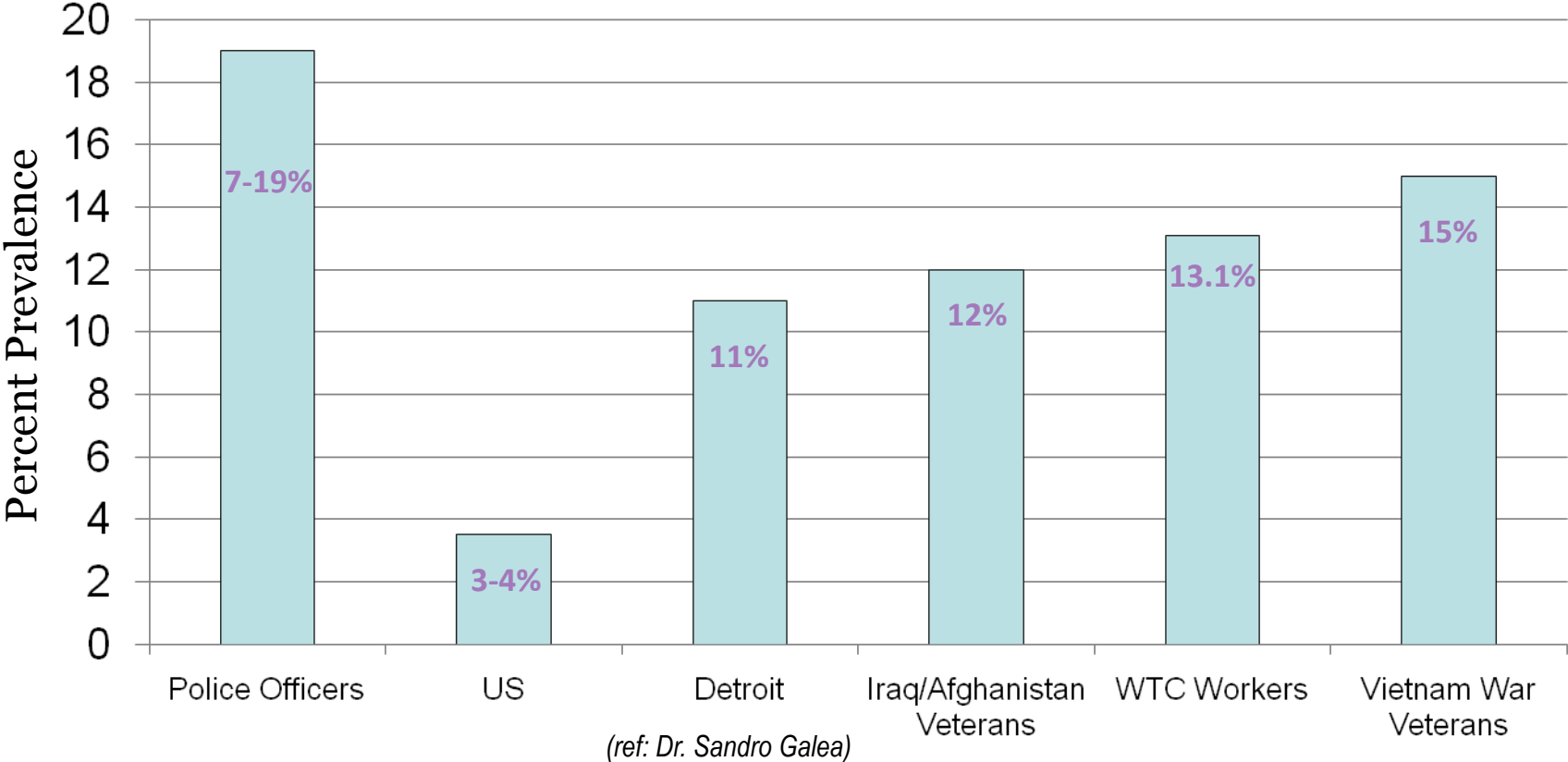- ❑ Vehicle-related deaths; traumatic injuries; cuts and bruises
- ❑ Injury rate among police & fire fighters 3 x average US job
- ❑ 11.4/100 police officers assaulted on the job in 2007
- ❑ 9/11: 403 Emergency responders killed
- ❑ Many more injured
- ❑ Substantial numbers suffer from exposure-induced diseases

Prevalence of PTSD

Partial PTSD (impairment w/out all criteria)
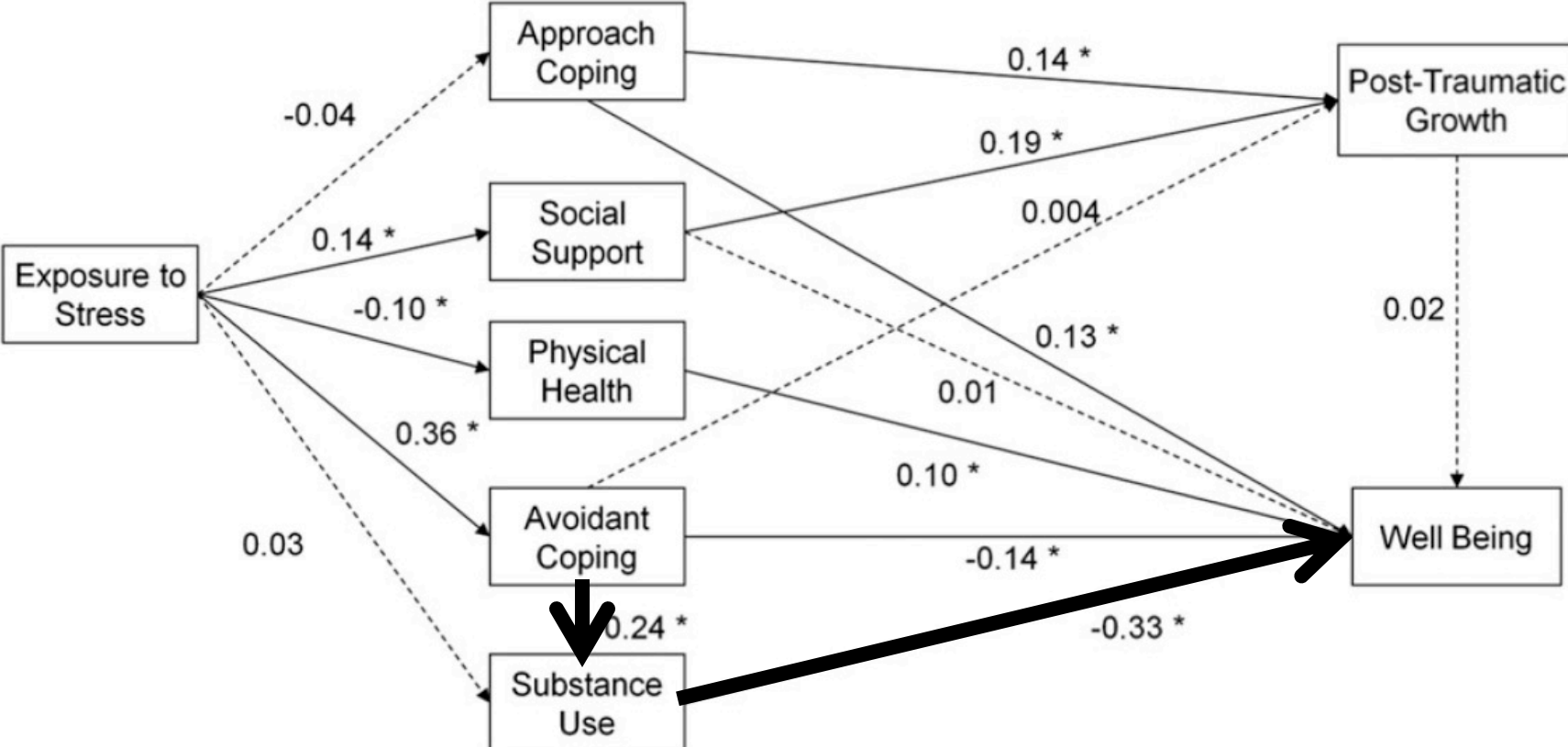34% of exposed police officers

(ref: Dr. Sandro Galea)

Behavioral Differences in Police

Variable	Police		Other first responders		
	M	SD	M	SD	t
Exposure to stress	15.46	3.32	13.26	3.03	**15.00**
Well-being	36.28	7.78	36.00	7.46	0.84
Post-traumatic growth	12.76	2.31	12.66	2.52	0.81
Approach coping	8.33	1.65	8.27	1.81	0.78
Social support	10.76	2.27	10.29	2.40	**4.30**
Physical health	12.59	3.41	13.10	3.38	−3.47
Avoidant coping	6.50	2.09	6.15	1.93	**3.77**
Substance use	3.46	1.03	3.62	1.25	−2.88

Note. Group means and standard deviations are reported for police officers and other, nonmilitary first responders; significant group differences are bolded ($p < .05$). Higher values indicate greater incidence of the reported experiences or behaviours.

N = 917 police
Compared to other first responders

Arble E, Daugherty AM, Arnetz BB. 2018. *Stress Health*.

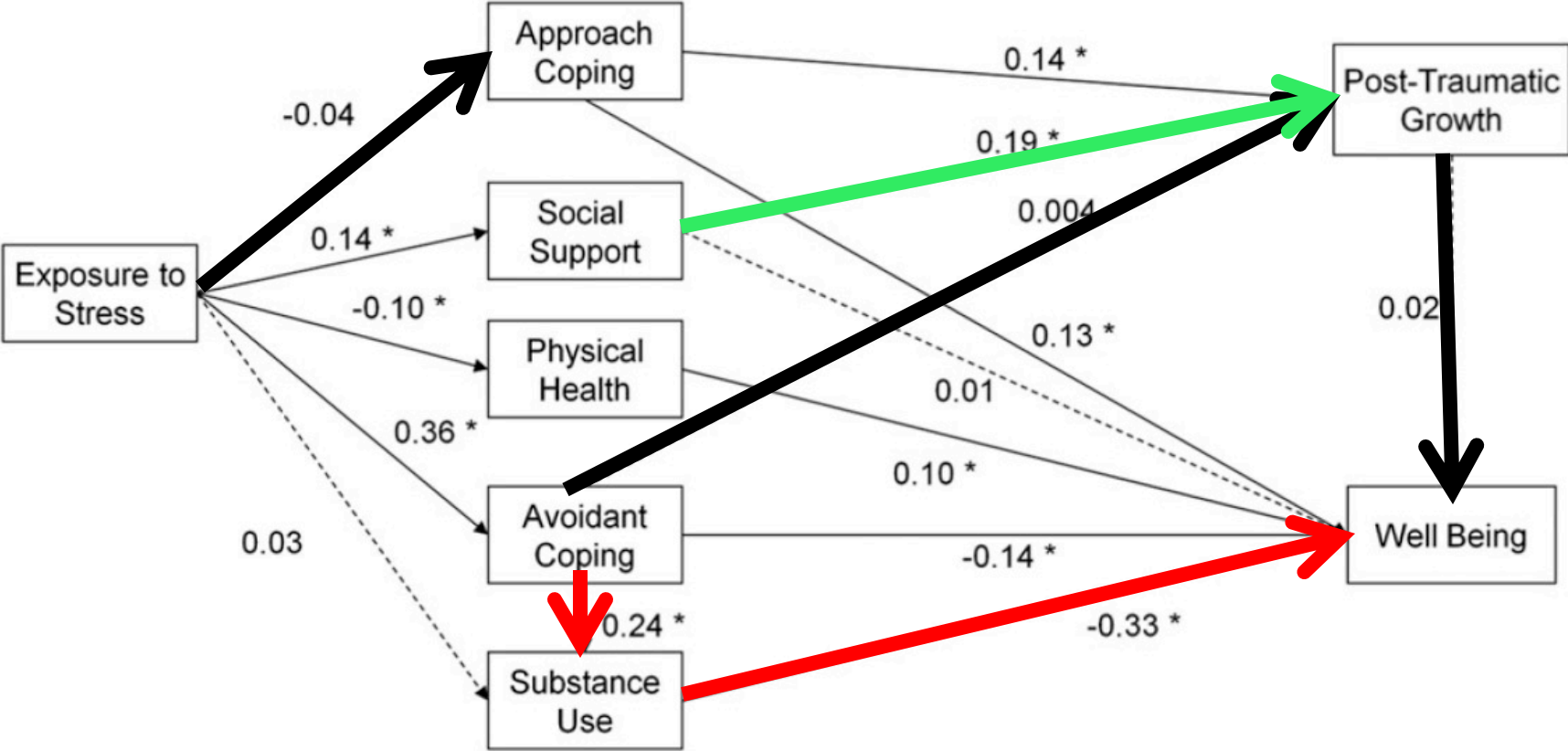# Differences in Response to Stress

Police were more likely to use alcohol and drugs following avoidant coping and suffered greater consequence to well being

Substance use alone accounted for 38% of variance in Well Being among police

Arble E, Daugherty AM, Arnetz BB. 2018. *Stress Health*.

Possible Points of Intervention

Paths that were weaker in police may be opportunities for intervention

**Compared to other first responders,
Police showed greater post-traumatic growth from social support**

Arble E, Daugherty AM, Arnetz BB. 2018. *Stress Health*.

Summary

- Police officers are a unique population of first responders
  - Greater trauma exposure
  - Professionally bound aspects of police stress/coping

- There appear to be numerous pathways and skills that can be acted upon to improve coping among police officers

- Diverting behavior away from avoidant coping-related substance use to activities that encourage post-traumatic growth
  - Translating Social Support to Approach Coping
  - Increase Approach Coping and Physical Health behaviors

Acknowledgments

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