Secondary Trauma:
Effects, Interventions and Implications

Professor Cheryl Regehr

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Causes of Secondary Trauma: Ongoing Exposure

- Repeated exposure to violent / disturbing images
  - “dosage” model
- Exposure to a specific / high impact event
- Empathic engagement with clients

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Causes of Secondary Trauma: A single dramatic event

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Causes of Secondary Trauma: Organizational / Societal

- Organizational stressors
  - workload
  - organizational change
- Organizational supports
  - supportive work environment
  - acceptance of trauma response
  - no “witch hunts”
- Society
  - media coverage
  - inquests / court

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“We speak for the dead”

Coroner’s office of Ontario

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Child Mortality Task Force

- Investigate the deaths of children who died while receiving child welfare services over a 2 year period
- Formed in response to 5 coroner's inquests into deaths of children in care
- 400 recommendations
- Overhaul of child welfare system

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Predictors of Post-Traumatic Distress in Child Welfare Workers

Cheryl Regehr - University of Toronto

Bruce Leslie - Children's Aid Society of Toronto

Phil Howe- Children's Aid Society of Toronto

Shirley Chau- University of Toronto

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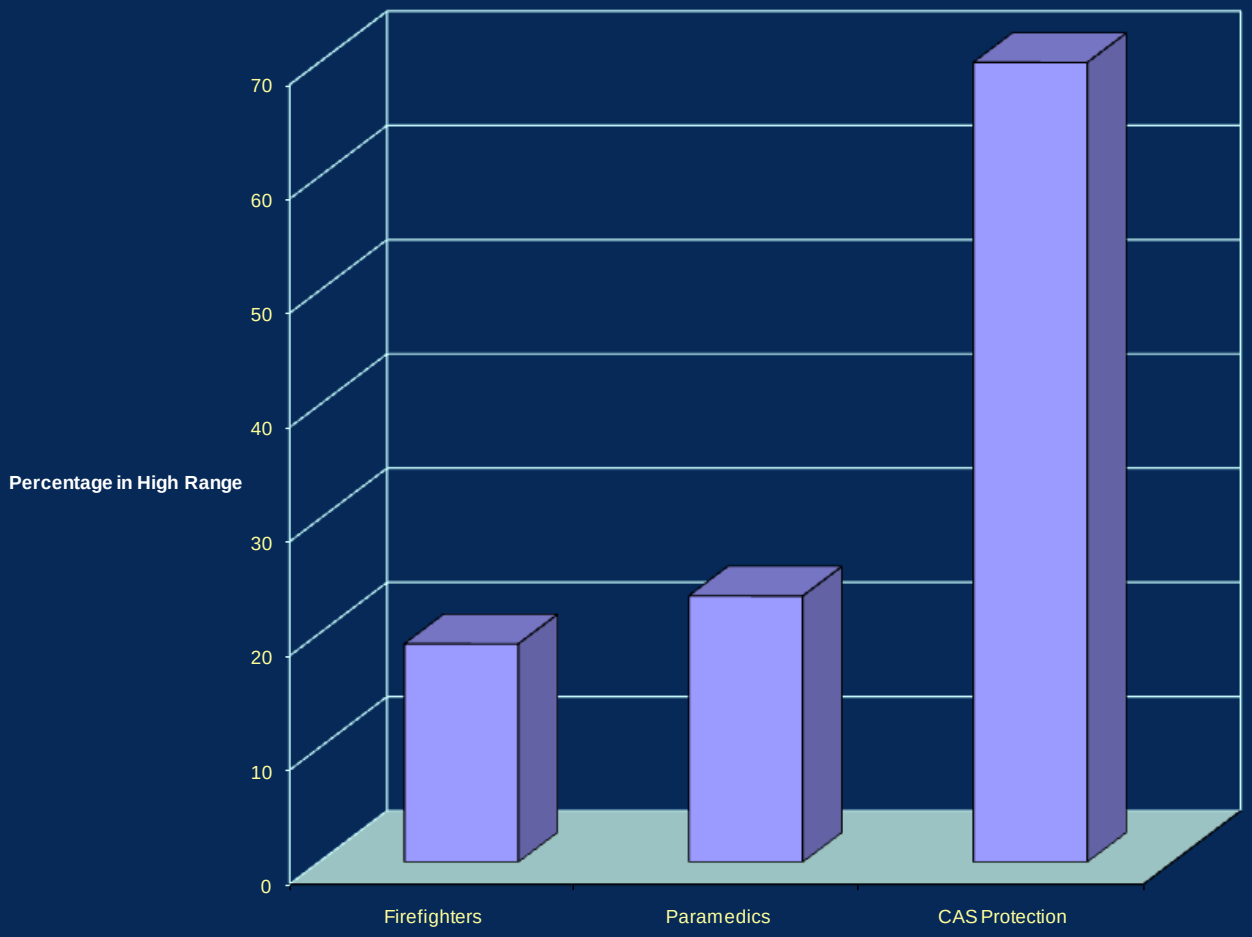
Comparing Traumatic Stress Symptoms



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Impact of Individual on Distress

- Locus of control:
  with depression ($r=-0.40$, $p \leq 0.01$)
  with IES scores ($r=-0.19$, $p \leq 0.01$)

- Relational capacity:
  egocentricity with IES scores ($r=-0.17$, $p \leq 0.05$)
  egocentricity with BDI ($r=-0.35$, $p \leq 0.01$)
  alienation with BDI ($r=-0.37$, $p \leq 0.01$)
  insecurity with BDI ($r=-0.42$, $p \leq 0.01$)

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Impact of Support on Distress

- Only measures of support significantly associated with scores on the Impact of Event Scale was management support ($r=-0.21$, $p \leq 0.01$)

- All measures of social support were associated with BDI scores
  spouse ($r=-0.25$, $p \leq 0.01$)
  friends ($r=-0.17$, $p \leq 0.05$)
  family ($r=-0.28$, $p \leq 0.01$)

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Impact of Organization on Distress

- Cumulative work stresses
  with IES ($r=-0.32$, $p \leq 0.01$)
  with BDI ($r=-0.23$, $p \leq 0.01$)

- Work support
  management support & IES ($r=-0.21$, $p \leq 0.01$)
  management support & BDI ($r=-0.26$, $p \leq 0.01$)
  colleague support & BDI ($r=-0.31$, $p \leq 0.01$)

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Impact of Reviews on Distress

- Involvement in any review associated with higher scores on IES avoid ($p \leq 0.05$)
- Involvement in internal review associated with higher scores on IES avoid & IES total ($p \leq 0.05$)
- Extent of media coverage associated with higher IES total ($r = .19$, $p \leq 0.05$), IES intrusion ($r = .21$, $p \leq 0.05$)

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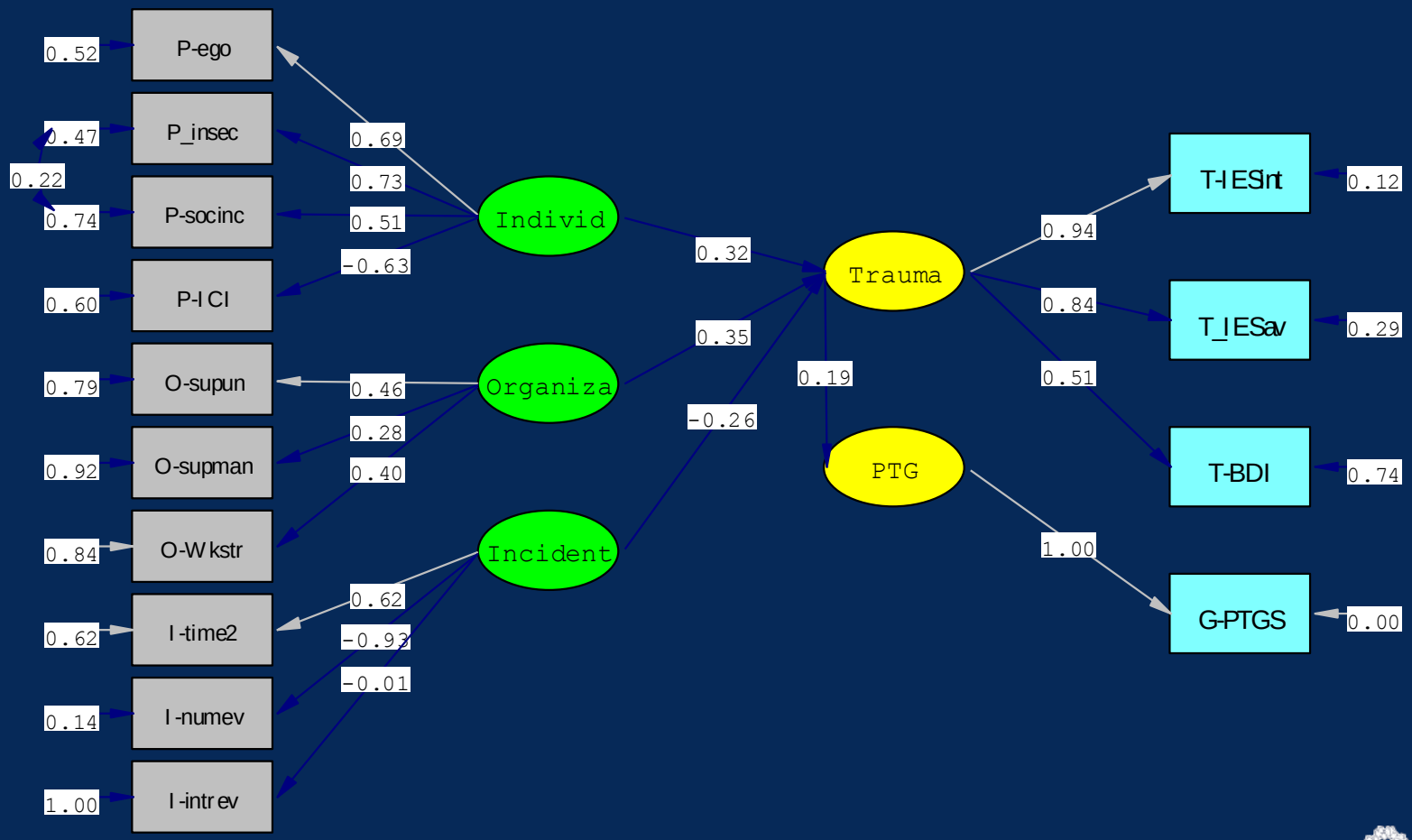

Regehr, 2002

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The Impact of PTSD on Performance and Decision-Making in Emergency Occupations – Implications for Forensic Assessment

Cheryl Regehr & Vicki LeBlanc

University of Toronto

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Background

- High levels of exposure to potentially traumatizing events in emergency services
- High reported rates of traumatic stress
- PTSD associated with deficits in neuropsychological functioning
- Performance deficits associate with acute stress
- E.R. work events by definition are unpredictable, often uncontrollable, high demand
  = acute stress

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Do trauma symptoms contribute to performance impairments on work-related tasks during acutely stressful events?

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Standard Methodology

- Pretests
  - trauma exposure, trauma level
- Ongoing monitoring (pre,post,followup)
  - heart rate, cortisol, perceived stress
- Exposure to high stress simulation
- Performance appraisal

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Study 1: Influence of Prior Trauma on Police Performance

- 911 call
- Domestic dispute
- Officer barred entry by aggressive male
- Enters down blind hallway
- Unresponsive female on floor

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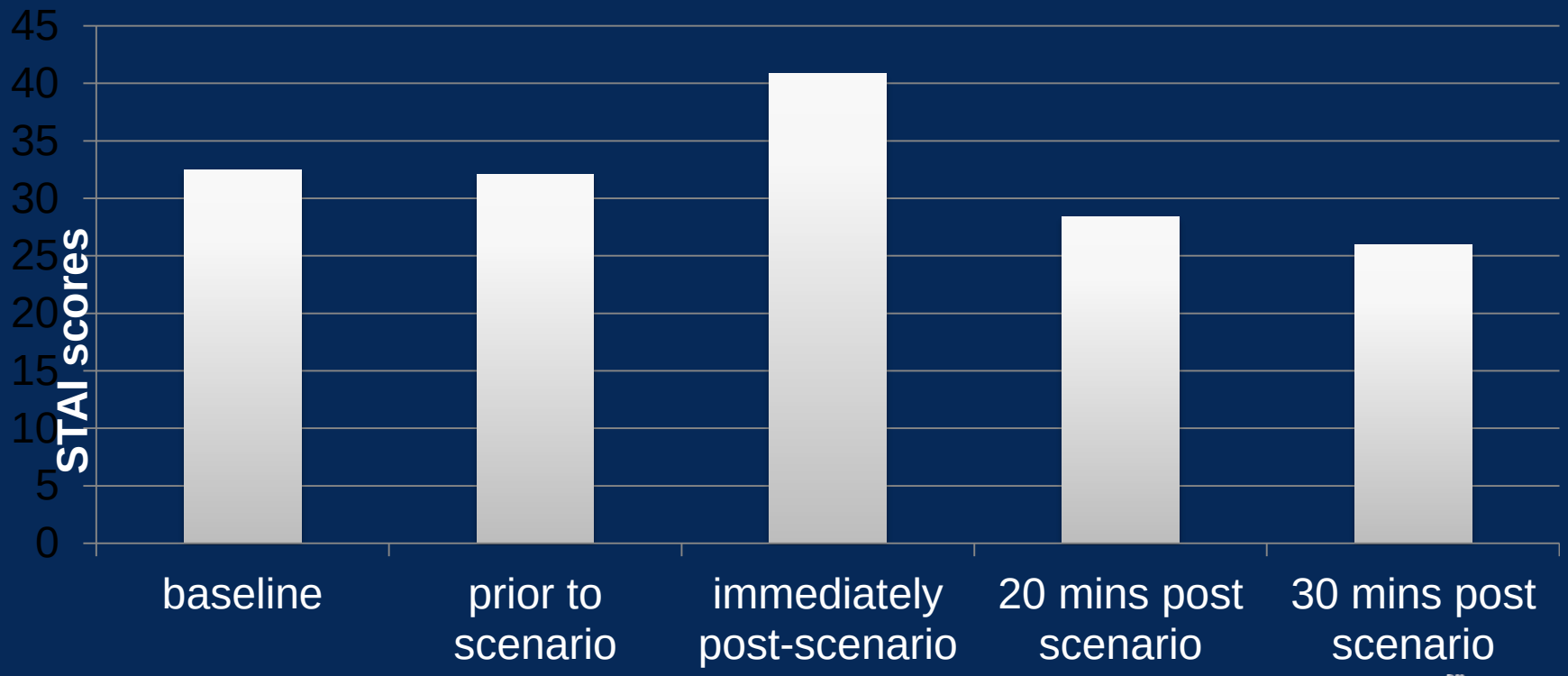
State Anxiety (STAI) Scores



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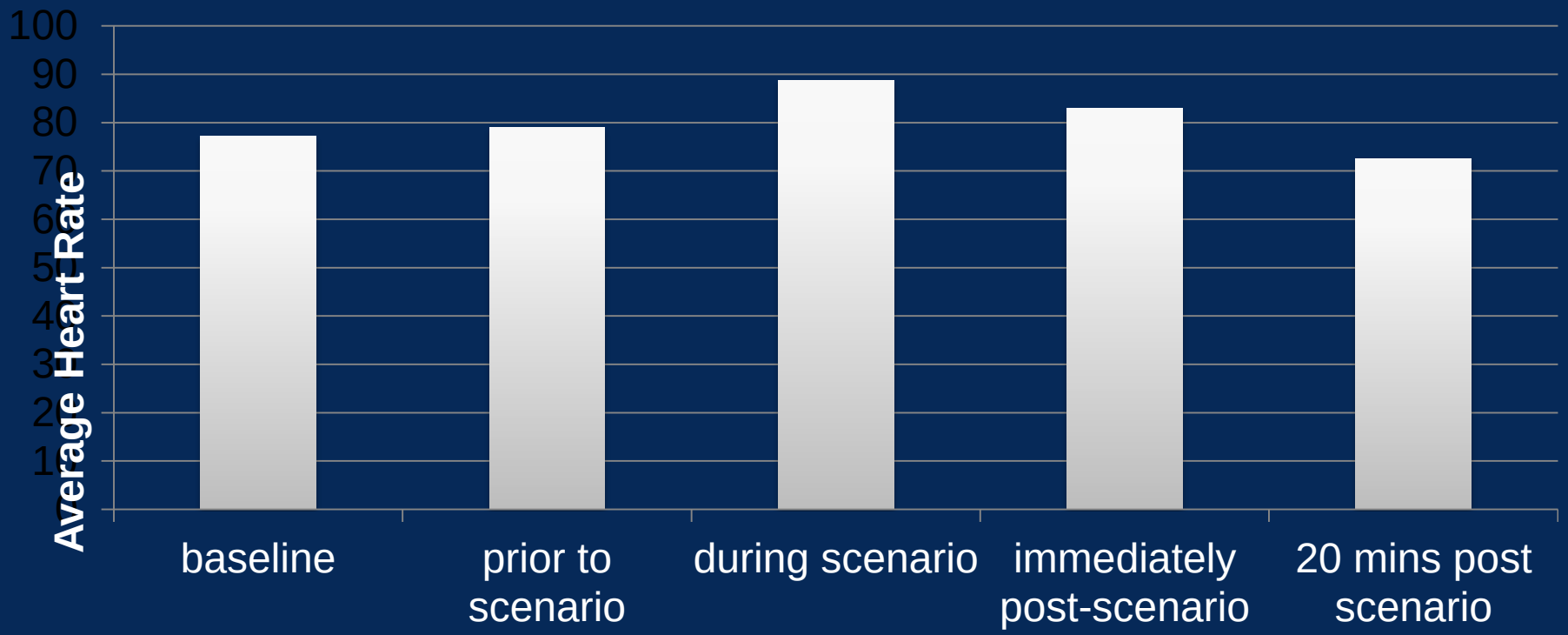
Heart Rate Response



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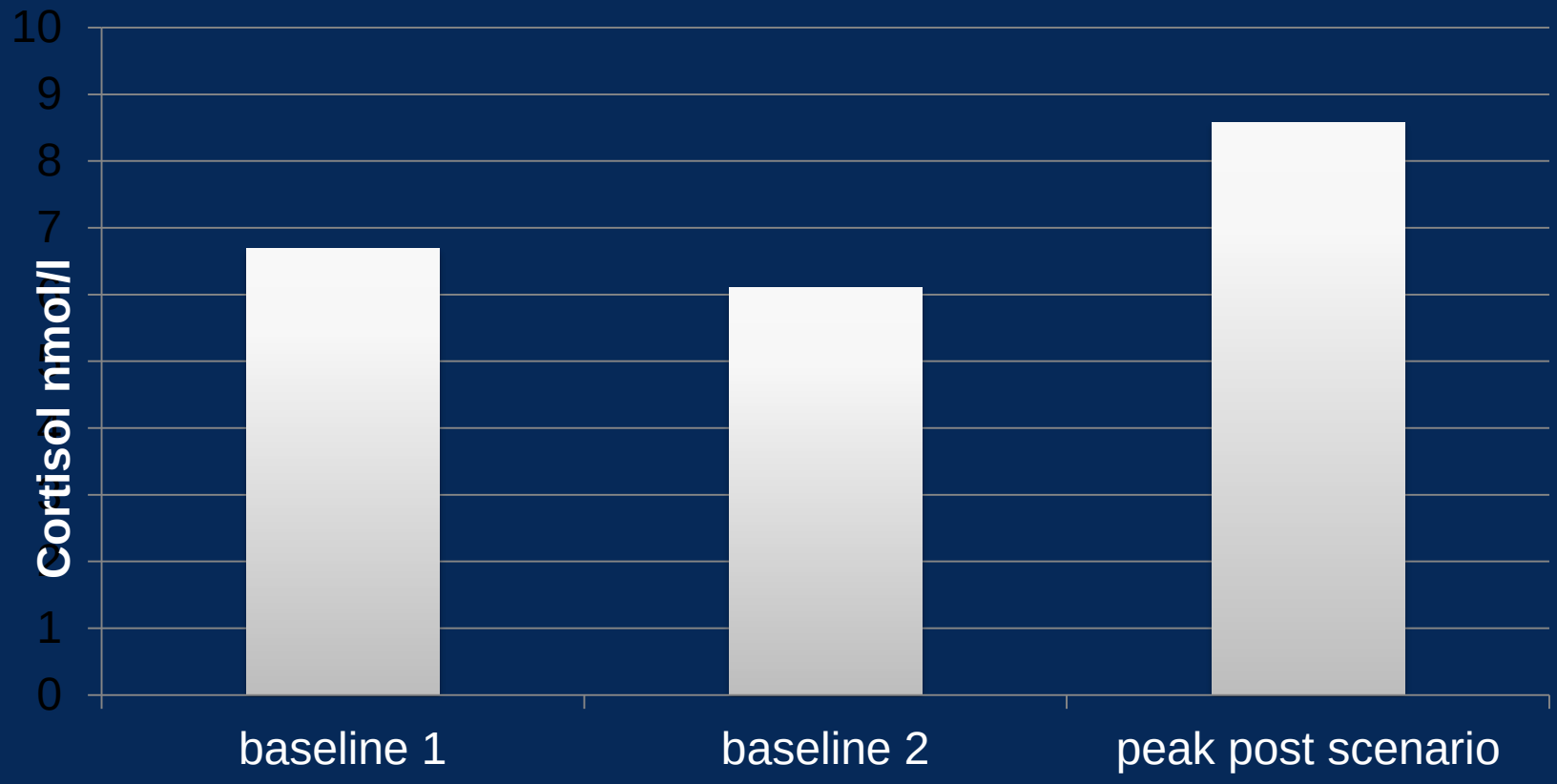
Cortisol Response



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Findings

- No correlation between prior trauma exposure and performance
- No correlation between level of PTSD and performance
- Subjective distress **not** correlated with performance
- Heart rate **not** correlated with performance
- Cortisol level 20 minutes after the event **was** significantly correlated with performance

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Study 2: Standardized Risk Assessment of Child Abuse: Influences on Judgment

- Simulated assessment of 2 high risk families
- Infant / latency age child
- Aggressive parent / cooperative parent
- Completion of risk assessment measures

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Findings

- As number of exposures to critical events increased, workers were **less likely** to determine that a child was at risk of abuse.
- Higher levels of symptoms of traumatic stress, they were less likely to determine that a child was at risk of abuse or neglect
- Higher acute stress was associated with higher perceived risk for the child

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Study 3: Stress and Performance in Paramedics

- Simulated cardiac event
- Assisted by a confederate paramedic
- Actor playing patient's partner and noise in high stress
- Performance video-taped, 3 raters

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Findings

- Performance on the global rating scales was significantly lower in the high stress scenario than in the low stress scenario
- Performance on checklist not affected
- More comission errors following high stress, but not omission errors
- PTSD not associated with performance

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Study 4: Police Communicators

- Series of routine 911 calls
- Followed by high stress call
- Performance recorded and rated
- Performance on cognitive tests evaluated

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Results

- Speed decreased following high stress
- Errors on complex task increased following high stress
- Errors in spelling did not increase
- PTSD associated with performance on complex cognitive tests

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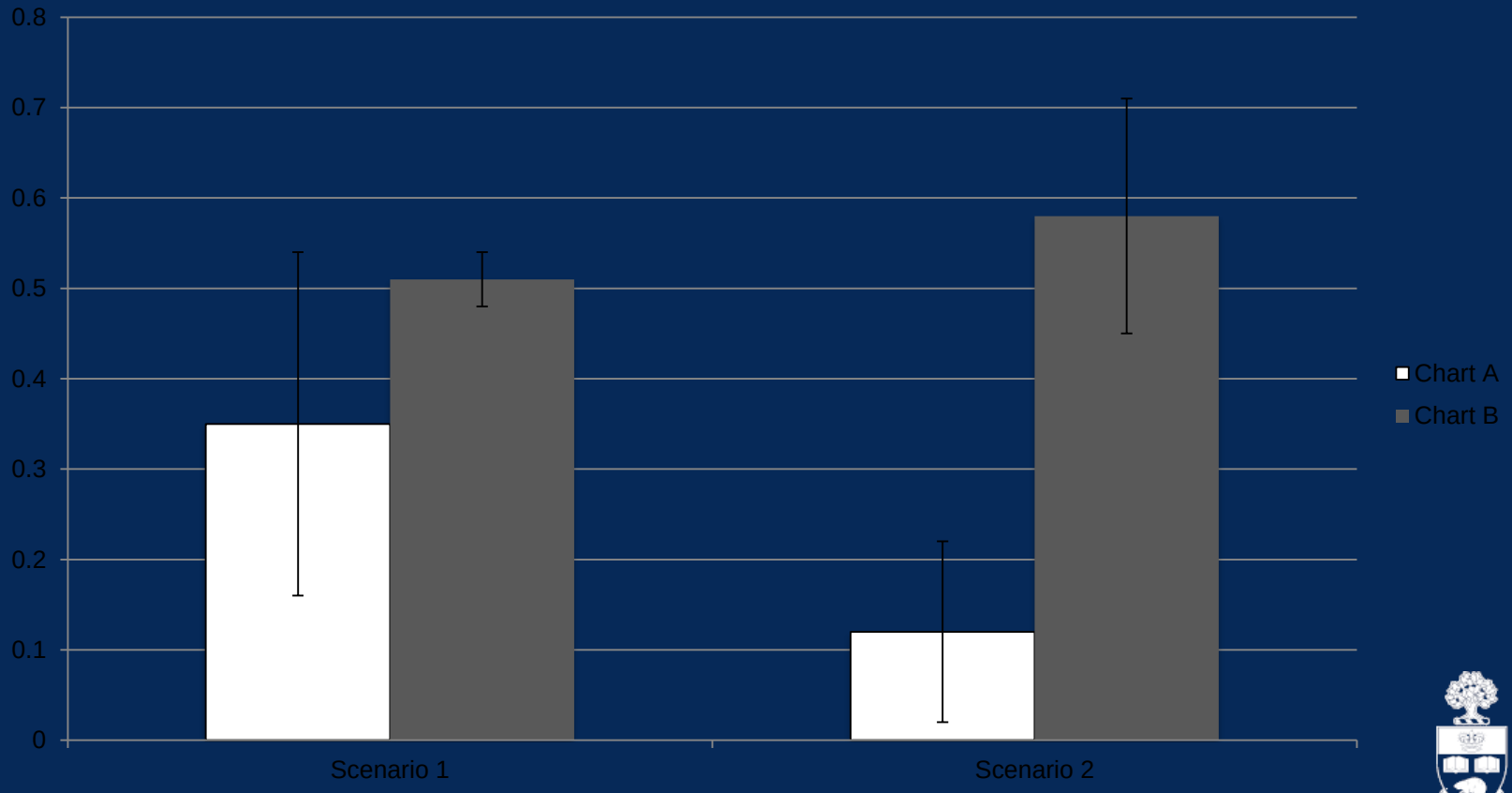
Number of Errors on Cognitive Test (Large/Large, small/small vs Small/large)



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Results Summary

	Acute Stress	Post-Traumatic Stress
Police Recruits	X Subjective distress not correlated with performance √ Cortisol correlated with performance	X No correlation between PTSD and performance
Child Welfare Workers	√ Associated with greater likelihood of determining a child is at risk	√ PTSD associated with less likelihood of determining a child is at risk
Paramedics	√ Global performance lower following high stress √ More commission errors following high stress	X No correlation between PTSD and performance
Police Communicators	√ More errors on complex tasks following high stress	√ Associated with greater errors on cognitive tasks following high stress scenario

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Strategies for Reducing Secondary Traumatic Stress

Ted Bober

Cheryl Regehr

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Strategies for Reducing STS – Do they work?

- 259 mental health professionals (social work, nursing, psychology, medicine)
- Coping Strategies Inventory (Bober & Regehr)

  - Leisure time (family, vacation, hobbies, exercise)
  - Self-care (stress management training, self-care plans)
  - Supervision (case discussions, regular supervision)
  - Research and teaching

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Strategies for Reducing STS – Do they work?

- Workers believed strategies worked
- Managers and supervisors were significantly more likely to suggest that supervision was effective in reducing trauma
- Belief that a strategy worked was significantly related to time spent in that activity

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Strategies for Reducing STS – Do they work?

- No association between time alotted to engaging in ANY strategy and post-traumatic stress scores

- Only variable related to secondary trauma was time spent counselling traumatized individuals

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Crisis Debriefing Groups – Do They Work?

Cheryl Regehr
John Hill

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Conflicting Evidence

- Anecdotal reports and satisfaction surveys

  - universally positive, reports that groups are “helpful”

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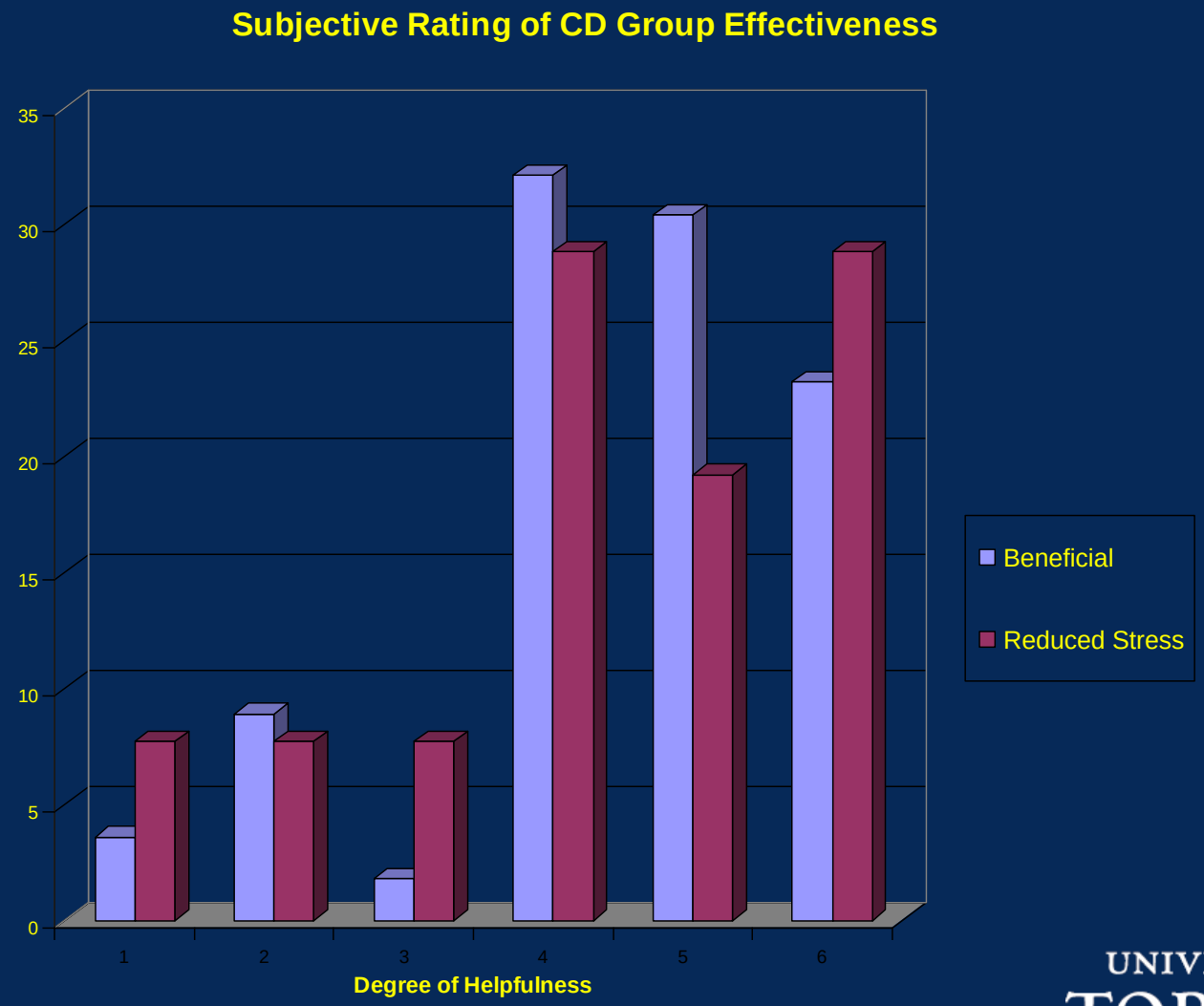
Australian Firefighters

Regehr & Hill N=165



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Conflicting Evidence

- Cross sectional quantitative designs

  -with emergency responders

  - no difference or higher scores on PTSD scales of those attending CD groups vs those who did not attend

  - who attends the groups?

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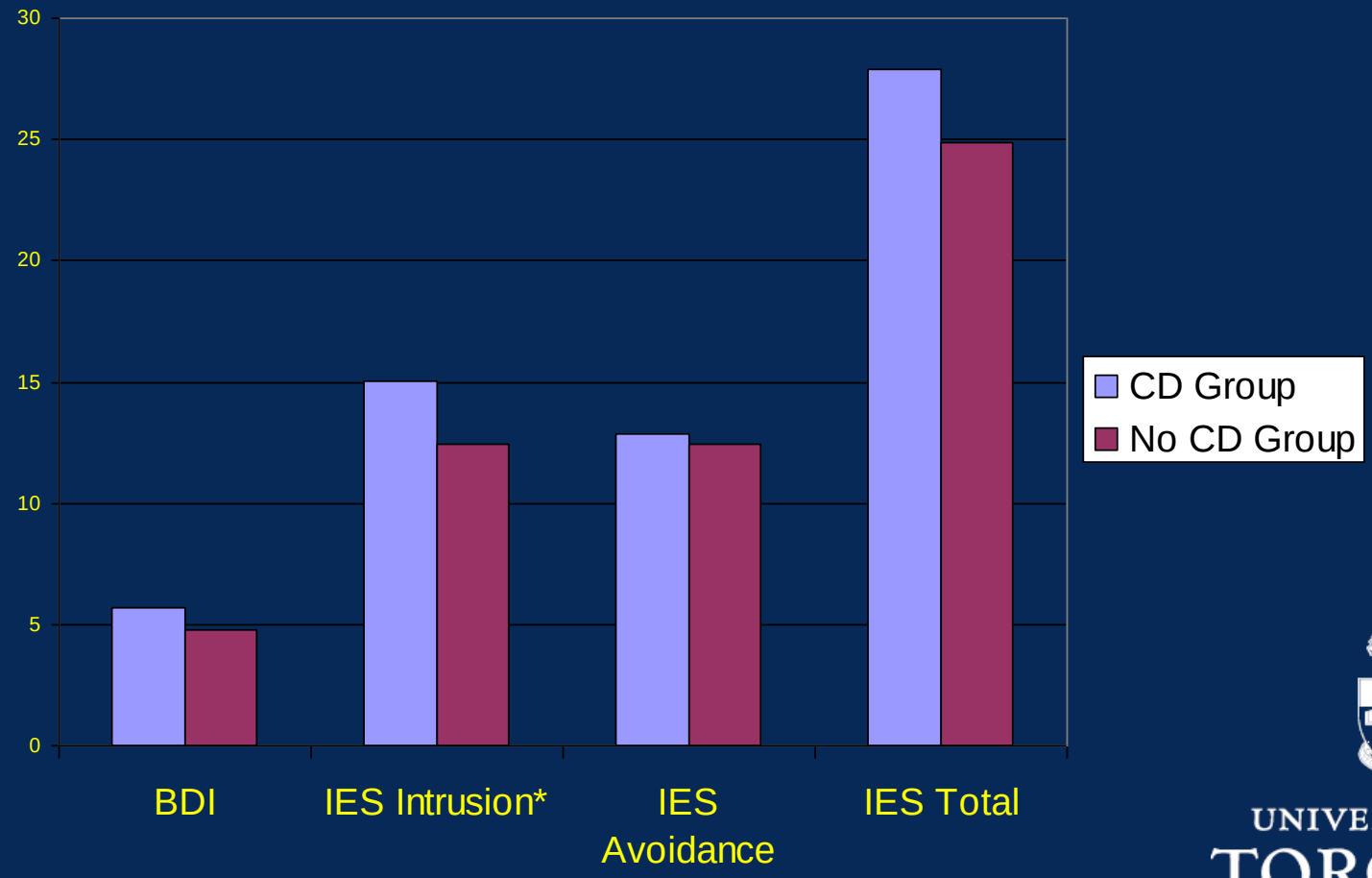
Australian Firefighters

Regehr & Hill **N=165**

PTSD, Depression and CD Groups



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Conflicting Evidence

- Randomized control trials

  - accident victims

  - higher rates of PTSD for those attending CD groups

  - generalizability?

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Strengths and Limitations of the CD Model

Strengths

- Normalizing of symptoms
- Increased control with CB techniques
- Mobilizing of social supports in the organization

Limitations

- Inability to reduce PTSD symptoms
- Possibility of vicarious traumatization
- Limited opportunities to assess vulnerabilities and risk of PTSD

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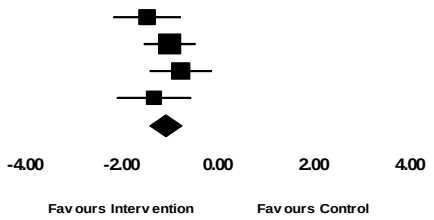
Stress in Physicians

Study name	Std diff in means	Standard error	Variance	Lower limit	Upper limit	Z-Value	p-Value
Justo, 2010	-1.435	0.364	0.132	-2.149	-0.722	-3.945	0.000
McCue & Sachs, 1991	-0.966	0.280	0.078	-1.514	-0.418	-3.457	0.001
Saadat et al., 2012	-0.735	0.335	0.112	-1.392	-0.078	-2.191	0.028
Sood et al., 2011	-1.292	0.399	0.159	-2.074	-0.509	-3.235	0.001
	-1.066	0.168	0.028	-1.394	-0.737	-6.350	0.000



Meta-Analysis of Controlled Studies

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Conclusions

- People do suffer from secondary trauma as a result of exposure to workplace traumatic events
- Secondary trauma may affect judgment
- No evidence that individual strategies to reduce STS are effective
- Organizational supports and social supports are related to lower levels of secondary trauma
- Group interventions must be focused on CBT or MBSR

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