

# FROM EXPOSURE TO INJURY:

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DEVELOPMENTAL AND COGNITIVE  
MECHANISMS UNDERLYING THE  
DEVELOPMENT OF MORAL INJURY IN  
SECURE HEALTHCARE WORKERS




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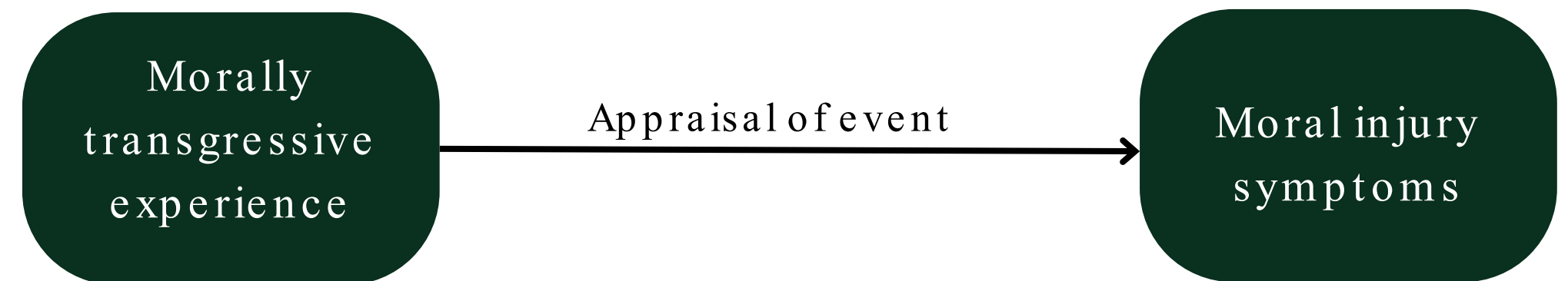
# MORAL INJURY IN SECURE MENTAL HEALTHCARE: WHAT DO WE KNOW ?

- Moral injury is both relevant to and prevalent in the occupational experiences of healthcare staff, including those working in a forensic context.
  - An initial study of this occupational group (Morris et al., 2022) found that scores on the MIES exceeded those reported in physical healthcare settings, and were comparable to military studies.
  - Not all who experience a morally injurious event will go on to develop the symptoms that characterise a moral injury.
  - Risk factors have been identified in healthcare workers, though they primarily relate to demographic characteristics (e.g., gender, length of experience, role) and findings are mixed
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# RESPONDING TO AND REPAIRING MORAL INJURY IN HEALTHCARE: WHAT DO WE NEED TO KNOW? ≡

- Current models of and interventions for moral injury largely reflect those applied to PTSD. This commonly includes cognitive modalities that target the 'maladaptive' appraisal of events.



- But what about when appraisals are accurate – moral emotions are perhaps then adaptive responses to transgressions?
- Understanding the mechanisms that precede and follow the appraisal of an event may identify alternative and more appropriate targets for intervention



# ADDRESSING THE RESEARCH GAP



Surveyed 535 healthcare workers with at least 6 months experience working in a secure mental health setting, in any capacity.



Participants completed measures of moral injury exposure and symptoms (MIESS-C), childhood trauma exposure and symptoms (PC-PTSD-5), negative schemas (BCSS) and maladaptive metacognitions (MCQ-30)



Explored the single and serial mediating effects of early trauma, cognitive schemas and metacognitions in the pathway between PMIE exposure and moral injury symptoms



# KEY FINDINGS:

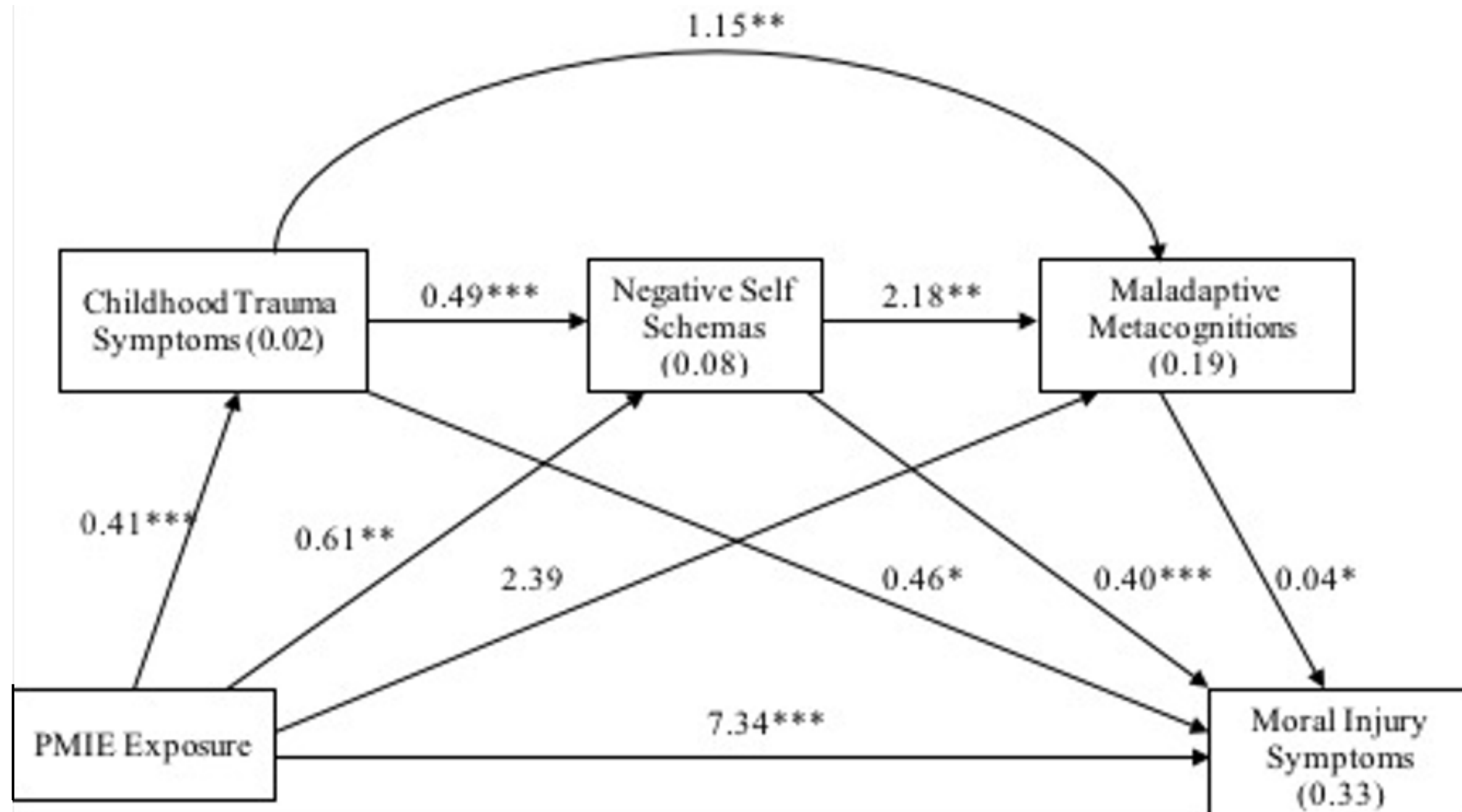
## PROFILES OF MORAL INJURY

	Exposed	Impacted*
Transgressions by other people	68.7%	73.2%
Betrayal by institutions	48.8%	86%
Betrayal by other people	41.3%	82.6%
Self-transgressions by inaction	23.6%	78.9%
Self-transgressions by action	19.6%	80.2%

- Most participants (81.4%) reported exposure to a PMIE
- Transgressions by others were the most commonly experienced PMIE, though were rated as impactful by the fewest proportion of participants
- Betrayal by institutions were the second most frequently experienced PMIE, and were rated as impactful by the greatest proportion of participants
- The median impact score was 4 ('slightly troubling') for all PMIEs



# KEY FINDINGS: PATH ANALYSIS



- With the exception of the a-path between PMIE exposure and maladaptive metacognitions, all other parameter estimates were significant

- The a-path between PMIE Exposure and negative other schemas was not significant (tested as separate model)

- The b-path between negative other schemas and moral injury symptoms was not significant (tested as separate model)

# KEY FINDINGS:

## MEDIATION ANALYSIS



		$\beta$	Boot SE	Boot 95% CI	
				Lower	Upper
Direct effect					
Moral Injury Exposure → Moral Injury Symptoms		7.34*	0.57	6.22	8.47
Indirect effects					
M1	PMIE Exposure → Childhood Trauma Symptoms → Moral Injury Symptoms	0.19*	0.10	0.01	0.41
M2	PMIE Exposure → Negative Self Schemas → Moral Injury Symptoms	0.25*	0.11	0.06	-0.49
M3	PMIE Exposure → Maladaptive Metacognitions → Moral Injury Symptoms	0.09	0.07	-0.02	0.26
M12	PMIE Exposure → Childhood Trauma Symptoms → Negative Self Schemas → Moral Injury Symptoms	0.08*	0.04	0.02	0.17
M13	PMIE Exposure → Childhood Trauma Symptoms → Maladaptive Metacognitions → Moral Injury Symptoms	0.19*	0.01	0.00	0.05
M23	PMIE Exposure → Negative Self Schemas → Maladaptive Metacognitions → Moral Injury Symptoms	0.05*	0.03	0.00	0.13
M123	PMIE Exposure → Childhood Trauma Symptoms → Negative Self Schemas → Maladaptive Metacognitions → Moral Injury Symptoms	0.02*	0.01	0.00	0.04

- Significant simple mediating effects of childhood trauma symptoms and negative self schemas, individually
- Non-significant simple mediating effect of metacognitions
- Significant serial mediating effect of all three variables (childhood trauma symptoms, negative self-schemas, maladaptive metacognitions)

# SIGNIFICANCE & IMPLICATIONS OF THE FINDINGS



## Universal strategies to minimise PMIEs

Despite the more frequent exposure to PMIEs by external bodies, the level of distress associated with each PMIE type was equitable.

There is a need for strategies that minimise the occurrence of moral transgressions and betrayals enacted by the self, others, and the organisation. Research examining the impact of PMIE types on other wellbeing domains is needed.

## A role for metacognitive interventions?

Whilst metacognitions alone do not underpin the development of moral injury symptoms, they may play a role in exacerbating or reducing the mediating effects of trauma symptoms and negative self-schemas.

Metacognitive therapies may therefore have some utility in minimising risk for moral injury symptoms, as well as PTSD.

## A developmental model of moral injury

Individuals exposed to early adversity may be more at risk for moral injury, not just due to greater PMIE exposure resulting from hypervigilance but also due to a greater tendency to apply negative self-schemas in the appraisal of moral-based traumas.

Attachment-based interventions may have relevance in reducing risk for moral injury





# THANK YOU

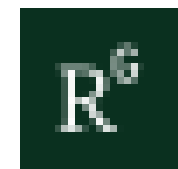
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