

# HPRnet Symposium 2018

## Partner Presentation

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# A Dynamic and Temporal Perspective to Optimise Team Resilience

## Why Study Team Resilience in Army?

- Teams are the building block of every Army activity in training and operations
- The collective capacity for teams to function effectively under adversity is critical to mission success
- Preparing (resilient) teams is an Army priority (Army R&D Plan, 2016)
  - *How can Army prepare teams to operate effectively in challenging operational conditions?*
  - *How can Army build better team and organisational resilience?*

## Our Team's Objective

- Characterise team resilience and its determinants in Army personnel to inform future interventions

## Novelty of Work?

- Many resilience studies, programs and initiatives in existence. Few well designed studies that address team resilience from a theoretical basis; the current project seeks to address this issue.
- Multi-measurement approaches (e.g., longitudinal designs with psychological, cognitive, and physiological indices; also computational modelling).

## Value for Defence?

- Development of evidence-based tools and strategies for assessing and developing Team Resilience
- Strategies incorporated into training materials (e.g., Commander's Guides)
- Strategies tailored to teams throughout Force Development Cycle (i.e., Ready, Ready, Reset)

## Project Design

1

### Research Questions

- What does team resilience look like in the Army?
- When does it matter for Army teams and why?
- How can Army facilitate team resilience?

2

### Experimental Methodology

- Systematic review
- Reliability and validity of point of care assessment of salivary cortisol and a-amylase
- Agent-based modelling (ABM)
- Longitudinal observations of teams in lab/ field (e.g., surveys, physiological indices)
- Data-prompted interviews and focus groups

3

### Deliverables

- Conceptual model of team resilience
- Scoping review of team resilience
- Strategies to foster individual- and team-level factors that maximise team resilience

4

### Timelines

- Conceptual paper (published)
- Scoping review (accepted)
- ABM simulations (~ Feb 2019)
- Field studies (ongoing)

# HPRnet Study of Team Resilience in the Army

Examine the emergence of team resilience in newly formed teams at varying levels of experience through to established teams in the trained force. Focus on combat corps and small tactical teams.



## Tranche 1: Initial Employment Trainees (2018)

- 16 week study with several IET platoons
- Self- and informant-rated surveys completed weekly



## Tranche 2: Special Forces Trainees (2018-2019)

- 15-month study over Reinforcement Training Cycle (RTC)
- Self- and informant-rated surveys, physiological markers of stress, sleep, observations, cognitive tests, and interviews



## Tranche 3: Readying Force Personnel (2018-2019)

- 12-month longitudinal study with 1 ARMD Regt in Readying phase
- Self- and informant-rated surveys and physiological markers of stress taken monthly

# Timelines and Deliverables

Item	Deliverable	Due Date	Status
1	Military command approval & research project plan	21 April 2017	Completed
2	Systematic scoping review	21 July 2017	Completed
3	Data collection (phase 1)-scoping with units	21 Nov 2017	Completed
4	Ethics protocol submission for review	21 Feb 2018	Completed
5	Data collection and analysis (phase 1)	21 May 2018	Completed
6	Phase 1 report (including theoretical model of team resilience)	21 Nov 2018	Completed
7	Data collection (phase 2)	21 Feb 2019	On Track
8	Data analysis (phase 2)	21 April 2019	On Track
9	Phase 2 report (including behavioural observation tool)	21 June 2019	On Track
10	Data collection and analysis (phase 3)	21 Sept 2019	On Track
11	Phase 3 report (evidence-based guidelines for enhancing team resilience)	21 May 2020	On Track

## Progress

- **Overall:** Project is **ON-TRACK**
- **Data collection:**
  - Study 1 with IETs completed
  - Studies 2 (RTC) and 3 (Readying) ongoing
  - ABM (ongoing)
- **Papers:**
  - (i) conceptual model of team resilience (published);
  - (ii) scoping review of team resilience literature (accepted);
  - (iii) iPRO reliability and validity study (draft completed);
  - (iv) predictors of selection test performance (draft completed)
- **Presentations:**
  - (i) Keynote at Defence Resilience Forum (June, 2018)
  - (ii) Oral presentations at DHSS (1 as lead, 1 as contributor)
- **Other:** PME session conducted with Study 3 participants (Nov, 2018)

# Challenges, Lessons Learnt, & Opportunities

## □ Challenges

- Regular interstate travel for data collection
- Longitudinal observation designs – sample size, drop-outs, intact teams
- Ensuring sufficient ‘adversity’ in environment to study team resilience emergence
- Managing expectations about outcomes (e.g., tracking *rather than* training)

## □ Lessons Learnt

- Access to Army SMEs for unit engagement has been vital to project success
- Army ‘Task Orders’ help to raise project status and formalise unit participation
- Having multi-disciplinary team has provided opportunity to investigate team resilience from integrated perspective

## □ Opportunities

- Substantial interest from Army, particularly psycho-physiological interface (e.g., leadership within participating units, study participants)
- Mutually beneficial collaboration with UWA was identified by DST and has been capitalised through data collection activity with SASR
- Where else are teams critical in Army? International collaborations (e.g., TTCP)?



# The emergence of team resilience: A multilevel conceptual model of facilitating factors









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WORK & STRESS

<https://doi.org/10.1080/02678373.2018.1529064>



## Team resilience: A scoping review of conceptual and empirical work

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