

Human Applied Cognition Decision- Making Lab

Bouncing Back: Investigating the Interplay of Team Resilience, Positive Affect, and Performance

Devoe, J., Smith, D., Bilichenko, O., Davalath, S.. & Gonzalez, A. Professor: Dr. Michael Gillespie Graduate Assistant: Caroline Deal

University of South Florida, Department of Psychology, Tampa, FL 33620



Introduction

- Previous research suggests that resilience is linked to better performance outcomes, but this relationship may be contingent on the emotional states individuals experience during challenging tasks.
- For this study we drew on the broaden-andbuild theory of positive emotions and the biopsychosocial model of stress appraisal.
 Based on the literature, we propose:

H1: Psychological resilience will relate positively to general self-efficacy.

H2: Teams who report greater psychological resilience will display better task performance.

H3: The relationship between team resilience and team task performance is mediated by positive affect

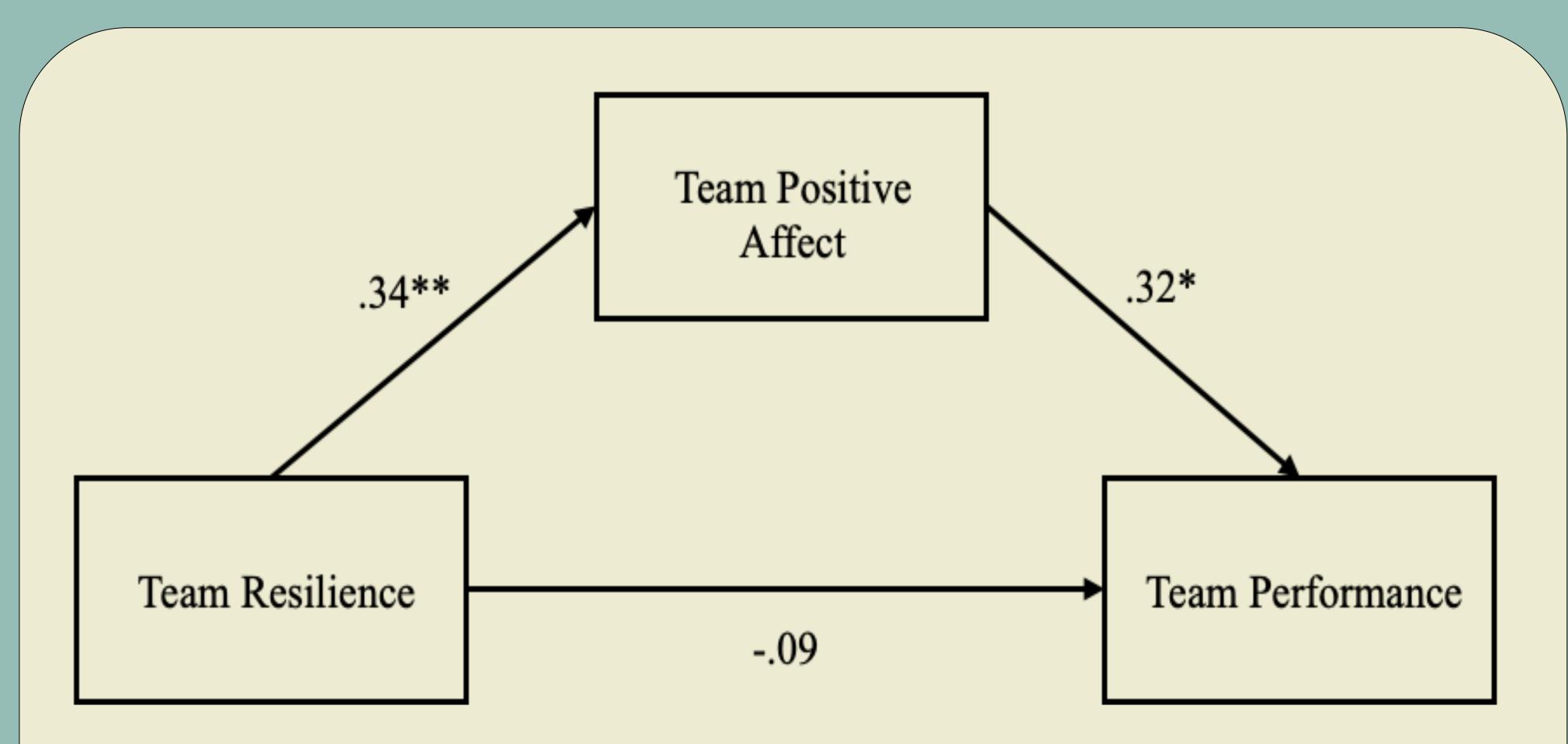
Methodology

Task: Participants worked in pairs on a timed bomb-defusal task: one ("sender") had an instruction manual, and the other ("receiver") interacted with the virtual bomb, requiring clear communication and teamwork.

Participants: n = 71 dyads

Measures:

- Resilience was measured using the Connor-Davidson Resilience Scale (CD-RISC; Connor and Davidson, 2003)
- Self-Efficacy was measured with the General Self-Efficacy Scale (Romppel et al., 2013)
- Positive Affect was measured using the Positive Affect and Negative Affect Scale (PANAS; Watson et al., 1988)



Joint Significance Test revealed team resilience significantly predicted team PA (β = .34, p = .009) and team PA significantly predicted team performance (β = .32, p = .011), while the direct path from team resilience to team performance was non-significant (β = -.09, p > .05). Thus, Team PA fully mediated the relationship.

Means, standard deviations, and correlations with confidence intervals

Variable	M	SD	1	2	3
1. Module Successes	2.63	1.17			
2. Team Resilience	5.44	0.99	.01 [22, .25]		
3. Team Positive Affect	64.18	11.26	.27*	.32** [.09, .51]	
4. Aggregated General Self- Efficacy	8.14	0.99	.08	.70 ** [.56, .80]	.39** [.17, .57]

^{*} indicates p < .05. ** indicates p < .01

Results

- Analyses found a significant positive correlation between resilience and general self-efficacy (r = .64, p < .01)
- The direct relationship between team resilience and team performance was not found to be significant (β = -.09, SE= .14, p > .05).
- Team resilience significantly predicted team PA (Positive Affect) (β = .34, SE = .13, p = .009), and team PA significantly predicted team performance (β = .32, SE = .12, p = .011).

Discussion

- Self-efficacy and resilience are significantly related at the individual level.
- The findings regarding team resilience, team positive affect, and team task performance suggests that the relationship between team resilience and team task performance is fully mediated by team positive affect.
- The relationships found suggests a framework supporting the applicability of the biopsychosocial model of challenge and threat (Blascovich & Tomaka, 1996) at the team level.

Limitations and Future Directions

- Small sample size
- Assumption that positive affect directly indicates a challenge appraisals
- Increase sample size
- Future investigations should aim to evaluate appraisal using a more direct means of measure

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