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# The dynamics of power and psychological safety on team cohesion during interprofessional simulation-based education

Tanya Huff

*Virginia Commonwealth University*, [hufft@vcu.edu](mailto:hufft@vcu.edu)

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# **The dynamics of power and psychological safety on team cohesion during interprofessional simulation-based education**

Tanya Huff, RN, MSN, CCRN, CCNS, CNE  
Shelly Orr, MSN, RN, CNE  
Nital Appelbaum, PhD  
Kelly Lockeman, PhD  
Christopher Hogan, MD  
Brenda Queen, MD



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# Background

- Negative relationships among providers can affect teams in clinical settings, which can undermine patient safety.<sup>1</sup>
- Sources of poor team cohesion include:<sup>2,3</sup>
  - unequal distributions of power
  - inability to express oneself without fear

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1. Carpenter, J. (1995). Doctors and nurses: stereotypes and stereotype change in interprofessional education. *Journal of Interprofessional Care*, 9(2), 151-161.
  2. Leonard, M., Graham, S., & Bonacum, D. (2004). The human factor: the critical importance of effective teamwork and communication in providing safe care. *Quality and Safety in Health Care*, 13(suppl 1), i85-i90.
  3. Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350-383.

# Intervention



# Research Question

How is team cohesion as perceived by ICCS students influenced by:

1. perceived power distance—the distribution of power on a team, and
2. psychological safety—the belief that one can express themselves without the fear of negative consequences on a team?

# Methods

- Students who participated in the ICCS series in 2015-2016 completed a survey after the final session regarding their team experiences.
- Measures included team cohesion<sup>3</sup> (DV), perceived power distance<sup>4</sup> (IV), and psychological safety<sup>3</sup> (IV)
- A partial mediation model was used to analyze the influence of the IVs on team cohesion.

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3. Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350-383.
  4. Yoo B, Donthu N, Lenartowicz T. Measuring Hofstede's five dimensions of cultural values at the individual level: Development and validation of CVSCALE. *J Int Consumer Market*. 2011;23:193-210

# Mediation Model

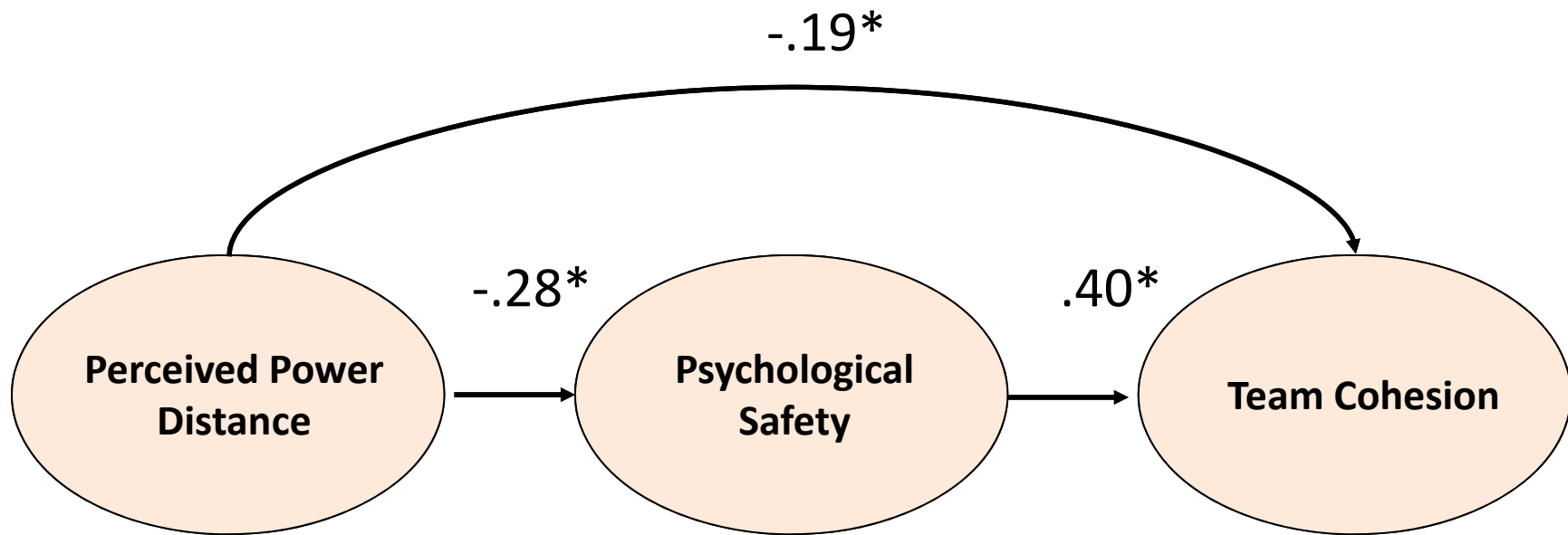


# Results

- 132 nursing students and 98 medical students across 48 teams completed the posttest measures.
- As greater power distance was perceived between medical and nursing students on a team, ratings of team cohesion decreased both directly and indirectly through psychological safety.
- As ratings of psychological safety increased, so did team cohesion.



# Model



$R^2 = .30$ ,  $F(2,227) = 47.94$ ,  $p < .001$

Total effect of X on Y:  $-0.30$   $[-.40, -.20]$

Indirect effect of X on Y:  $-0.11$   $[-.18, -.05]$

Note: Controlled for semester;  $*p < .001$

# Limitations

- Cannot infer causation
- Responses were clustered within teams but not statistically accounted for
- Social desirability bias

# Implications for IPE Facilitators

- Creating a safe space where learners clearly understand their roles and responsibilities on an interprofessional team will impact the affective nature of team dynamics.
- Facilitators should:
  - Shape team interactions so power distance is minimized amongst disciplines
  - Support environments where students feel safe to speak up without the fear of negative consequences