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Transforming Physical Therapy Education Through the Use of Social Network Analysis

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Transforming Physical Therapy Education Through the Use of Social Network Analysis

University of Nebraska Medical Center | Nebraska Medicine

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Purpose

To explain the underpinnings of Social Network Analysis and its application to PT education for student success and faculty development.

INNOVATION

This study is **innovative** and will be **beneficial** to the profession because there is currently a gap in the literature exploring **how PT education is influenced by social structures.**

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What is Social Network Analysis?

How individual connections form into social structures that influence outcomes of the group

Unpublished data
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Legend	
You	
PT at the same institution	
PT at different institution	
Non-PT in graduate education	
Non-PT at the same institution	
Non-PT Clinician	

Sociogram

Individuals are placed nearest to those with whom they share the most connections.

Becker, unpublished data

Unpublished data
 not shown in PDF handout

Legend	
You	
PT at the same institution	
PT at different institution	
Non-PT in graduate education	
Non-PT at the same institution	
Non-PT Clinician	

Degree (Size): 20
 Total Members

Effective Degree (Size): 12
 takes into account when members duplicate one another's connections & do not contribute new resources or information

Becker, unpublished data

Unpublished data
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Legend	
You	
PT at the same institution	
PT at different institution	
Non-PT in graduate education	
Non-PT at the same institution	
Non-PT Clinician	

Density → 52%

Unpublished data
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An effective network balances openness and density.

Becker, unpublished data

Unpublished data
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Composition → Homophily

Isaia, et al 2017, Moolenaar 2012, Becker, unpublished data

Methods

Literature Search of databases
 education, organizational management,
 business & sociology

Methods

Results

- 1 Influence of direct & indirect ties
- 2 Information Spread
- 3 Impact of one's position

Social Network Analysis
 Relational Data

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Creating & Supporting Effective Teams
 in educators

Casady, Poole 2010

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Spread of Behaviour & Peer Influence
 in Medical Students

Isaia, et al. 2017, Martinez 2003

RELATIONSHIP	Initial	Final
Sharing Information	29%	53%
Discussion	34%	48%
Solving doubts	43%	110%*
Create a product in common	77%	82%

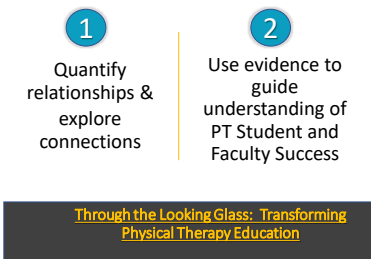
*authors did not report how they calculated a density beyond 100%

Collaboration: Changes in Network Density
 in engineering

Isaia, et al. 2017, Martinez 2003

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Individual Success & Network Position
 faculty



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