Beyond Size, Ties and Types: A Multimodal Framework for Using Network Analysis to Identify Key Connections between Communication and Cancer

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Current Research

Focus: individuals/dyads vs. Network

Attribute Data

[Diagram showing connections between individuals: Scott, Sara, Kim, Dr. Bay, Joe, Sam, Agent Chris, Dr. Bay, and Scott]
Ecological Perspective

- Policy
  - Federal Government Agencies (AHRQ, CDC, NIH, etc.)
  - Local/State/National Legislatures
  - National Advocacy/Non-Profit Organizations

- Community
  - Community/State/Regional Advocacy Organizations
  - Tribal Health Department
  - Media

- Organizational
  - Health Care Systems/Academic Medical Institutions
  - Health Disparity Collaboratives
  - Research Institutions
  - Coalitions
  - Health Insurance Plans (i.e., public and private)

- Interpersonal
  - Tribal Urban Health Clinics
  - Employer/Work Sites
  - Professional Organizations
  - State/Local Health Departments

- Individual
  - Provider
  - Family
  - Peers
  - Social Networks
  - Knowledge, Attitude, Beliefs
  - Community-Based Organizations
Monge & Contractor’s (2003) Multitheoretical, Multilevel Analytic Framework outlines three avenues for optimizing the use of network analysis:

1. Single Theory → Multitheoretical (Network + Attribute Explanation)
2. Single Level → Multilevel Analysis
3. Single Theory → Multitheoretical Analysis
A multitheoretical, multilevel, perspective offers three key advantages

- Integrates diverse theories
- Comparison of variables at different levels
- Increases explanatory power

Integrates diverse theories
Social Network Analysis
Social Network Analysis
SNA in Health

- Body Image and Weight (Hutchinson & Rapee, 2007; Valente, Fujimoto, Chou, & Spruijt-Metz, 2009)
- Obesity (Christakis & Fowler, 2007)
- Social Support (Haines & Hurlbert, 1992)
- Smoking (Christakis & Fowler, 2008)
- Happiness and Depression (Fowler & Christakis, 2008; Rosenquist, Fowler, & Christakis, 2011)
- Headaches and Acne (Cohen-Cole & Fletcher, 2008)
SNA and Cancer

- Heredity communication, communal coping, psychological well-being, depression, social support (Koehly et al., 2011)

- Necessity of incorporating theoretical perspectives and multiple levels of analysis (i.e. health care providers, institutional influences, etc.)
“The existence of social networks means that people’s health is interdependent and that health and health care can transcend the individual in ways that patients, doctors, policy makers, and researchers should care about”

-Smith & Christakis (2008)