SOC 6024H – NETWORKS AND HEALTH

Winter 2019
Mondays, 11:10-2:00p, Dept. of Sociology room 41 and room 36

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DESCRIPTION
This course addresses the overlap between social network analysis and the sociology of health. Readings cover various topics, including the health benefits of social capital, network processes in health care and help-seeking, the putative social contagion of illness and health behaviours, the role of networks in shaping sexual health risks, and the role of networks in shaping health behaviours and outcomes at various points of the life course. Students will identify a topic that interests them and will write an empirical or theoretical article intended to advance the literature on networks and health. We will also hold several ‘hands-on’ lab sessions to demonstrate techniques for working with social network data.

Three main goals shape the course:

- Link the social network approach to key puzzles and theoretical perspectives in medical sociology (e.g., explaining health inequality, conceptualizing the role of social influence on health behaviours and outcomes).
- Introduce social network methods and applications for the study of health; working with network data; building familiarity with common techniques for visualizing networks and analyzing them
- Craft a manuscript related to networks and health that can be eventually revised for submission to a professional and academic journal.

MODES OF EVALUATION AND DISTRIBUTION OF MARKS

- Class participation (10%)
- Presentation and discussion leadership (10%)
- Reflection memos (10%)
- Final paper (50%)
- Peer-review exercise for final paper (10%)
- Presentation of work in progress (10%)
**Weekly Class Participation**

Students are expected to complete each week’s reading and to actively contribute to class discussion. An overall assessment (10% of course total) will reflect weekly participation. Elements of class participation include (a) attendance, (b) acknowledging diverse viewpoints, (c) offering observations to illustrate key concepts, (d) posing questions to clarify or to challenge a statement, (e) drawing linkages from assigned readings to other readings or perspectives, (f) building on others’ contributions with additional information, (g) critiquing arguments in readings or made in class; (h) pointing to evidence that would extend an area of research.

**Presentations and Discussion Leadership**

Starting in week 3, a different student or group of students (depending on course enrollment) will make a presentation and lead the discussion. Each student can expect to be a discussion leader several times during the semester. The presentations should include a brief summary and synthesis of the week’s readings, but should ultimately push towards the “big picture” and help the class reflect on how the readings fit into the broader scope of the course. Rather than dissecting each article one-by-one, presentations should seek to integrate material from across the readings, drawing out commonalities, contrasts, points of agreement, and points of tension. Here are some of the basic issues that should be addressed in your presentation: (1) what are the key research question(s) or issues that arise in the readings?; (2) what are the core conceptual or theoretical perspective(s)?; (3) what are the methodologies used?; (4) what are the key findings and/or arguments of the readings? Are they consistent or in tension?; (5) what was particularly interesting from one or more of the readings?; and (6) what are some critical insights or reflections that would be useful for class discussion and debate? These presentations will set the tone for our class discussion and should use presentation software to help everyone follow along. Evaluations will be based on how well you synthesize the week’s readings, your effectiveness at presenting the content, and your capacity to lead the class in discussion.

**Presentation Reflection Memos**

For weeks in which you are a discussion leader, you write a brief memo that summarizes the key ideas in your presentation, but also captures how the group discussion expanded and refined your perspective on the readings. For example, you may describe how the comments of your colleagues helped clarify or challenge your initial insights. Memos should be handed in the following week of class and should be no more than 2 double-spaced pages.

**Final Paper**

By semester’s end, students will complete a paper related to social networks and health. This paper can take several forms: (a) an original empirical analysis using qualitative or quantitative data; (b) a proposal for a research study which outlines a specific research question as informed by relevant literature, describes, in detail, the data needed to conduct such a study, and anticipates the expected outcomes and likely complexities of carrying out the research; or (c) a theoretical/conceptual article which attempts to re-think some aspect of our current understanding or forge new directions for research in networks and health.
Whatever option students select, the final paper should be between 6,500 and 10,000 words and must follow ASA formatting. The title page should indicate a target journal where you could send your paper (if option A or C is selected) or a grant funding opportunity (if option B is selected). Papers previously or simultaneously submitted to other classes are not acceptable, and papers should not duplicate research that you have already conducted.

The paper will be completed in two stages. First, students will submit a draft of their paper on March 25. This draft may be rough, but it must represent the core argument well enough to be read and critiqued by classmates. Your colleagues will serve as “peer reviewers”, treating your paper as though it was a standard journal article submission and offering feedback akin to a journal referee (more details on this peer review process to come). Second, students will hand in a final paper which involves a response to peer review comments. Specifically, you will submit with your final paper a memo that articulates the major points of concern raised by your reviewer, including a description of how you responded to their comments and/or a rebuttal to their critiques. The final paper is due by 5:00 pm on April 19.

**Peer Review Exercise**

In this course, you will serve as peer reviewer of your colleagues’ work. Specifically, you will receive a rough draft copy of another student’s paper (see above), randomly selected from the submissions due on March 25. You will have one week to conduct a formal peer review evaluation of the paper, following the instructions of leading journals in the field (e.g., *Journal of Health and Social Behavior; Social Science & Medicine; Social Networks*). The peer review is due the final week of class (April 1). The goal of this exercise is twofold. First, giving and receiving feedback will help everyone’s work improve and should result in better final papers. Second, we will seek to simulate the journal submission/peer review process as a mode of professional socialization. To that end, we will spend some time throughout the semester talking about the peer review process and discussing best practices for this aspect of the academic life.

**Presentation of Work in Progress**

On March 18, you will present your work in progress related to the final paper assignment. Presentations should be 10 minutes in length and allow 5-10 minutes for question and answer time.

**Course Schedule**

**WEEK 1, January 7**

**Social networks in the sociological study of health**

The goals for this week are to introduce the study of networks and health and to survey the breadth of topics the network approach allows medical sociologists to study. Berkman et al. offer an integrative model of how social networks can influence health and propose a number of specific pathways that can be used to generate testable hypotheses. This reading will guide our
introduction to the course. We will focus on the distinction between social networks and other ‘social’ terms that have sometimes been used interchangeably in the study of health (e.g., social support, social cohesion, social engagement).

Reading:

Optional readings:
“This Role of Social Networks in Adult Health”; see introduction and entire special issue in Health Psychology (Vol. 33, No. 6, 2014)

WEEK 2, January 14 (meet in room 36)
Core network concepts; working with full network data
This week will feature an overview of basic network terminology and concepts, including the distinction between whole and ego networks, directed vs. undirected graphs, operationalizations of network centrality and cohesion, and ways of detecting network clusters, transitivity, homophily, and reciprocity. The class will be structured as a “lab” session. We will introduce network concepts using UCINET, focusing on visualization and description of whole networks.

Reading:

Optional readings:
This is a highly readable and thorough introduction to network analysis using the UCINET software package as developed by Steven Borgatti, Martin Everett, and Linton Freeman.
WEEK 3, January 21 (first 45 mins. in room 36)

Working with full network data (part II); practical considerations in doing network analysis

We will spend the first part of today’s class finishing up demonstrations for working with network data in UCINET in the lab. This week we will also consider best practices for network data collection and storage, study the complexities of measuring high-quality network data, and discuss unique ethical implications of using the network approach. We will examine how each of these concerns intersects with the study of health. In the final 45 minutes of class, we will return to the lab to demonstrate how to conduct network analysis in R, an open-source statistical program featuring many specialized social network procedures.

Readings:

Optional readings:

WEEK 4, January 28
Social capital and health inequalities

This week features three readings connecting classic sociological concern with health inequality to network-based perspectives on social capital. The main argument of social capital theory in sociology is that people acquire important resources through their network ties. Where this intersects with health inequality is that people with advantaged positions in society—e.g., those with high socioeconomic status—tend to have more resource-rich networks and may be able to extract more from their existing network ties than can less advantaged people. To the extent that these advantages yield access to high-quality medical information, strong social support, or other health-enhancing benefits, we might expect social capital to be a mechanism that explains health inequality.
Readings:

Optional readings:

WEEK 5, February 4

Network activation, help-seeking, and the management of health problems
This week’s readings pick up the theme of the importance of resources embedded in social networks. Articles highlight the role of social networks in various elements of health care (e.g., diagnosis, treatment, long-term disease management). Two of the readings consider how network members are involved when people seek mental health care and continue to matter as treatment progresses. The third takes a common, but often-undiagnosed physical ailment—hypertension—as a case study of how talking with others about health is a key part of detecting and living with chronic illness.

Readings:

Optional readings:


WEEK 6, February 11

Working with ego network data

We will spend this class in the lab to demonstrate how to work with ego-centric network data in Stata. We will introduce ways to manipulate these data so as to use network-based independent variables to predict health outcomes and test hypotheses using regression.

Optional reading:


NO CLASS FEBRUARY 18—READING WEEK

WEEK 7, February 25

Social influence and health

Social contagion is the idea that behaviors or information can spread between people as they interact. Over the past decade, social scientists Nicholas Christakis and James Fowler published a series of articles making the provocative claim that various aspects of physical and mental health, including obesity, smoking, depression, and loneliness, can spread through networks of people by up to three degrees of separation. That is, an individual’s health can be influenced not only by their friends, but also by their friends’ friends’ friends—people that the focal individual may have never met. Despite its allure, the Christakis and Fowler thesis has been widely contested. Critics have noted numerous drawbacks to these studies, many of which the authors themselves acknowledge in their research. Our focus this week will be on these ongoing debates. We will also consider an article that uses a unique study design—co-presence of patients in a cancer ward—to sidestep some of the problems in earlier research on social influence/contagion.

Readings:


**Optional readings:**


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**WEEK 8, March 4**

**Networks and adolescent health—influence? selection? both?**

Readings for this week apply many of the principles emphasized in preceding weeks—the potential for network connections to help or to harm, the difficulty in teasing out selection from influence—to a range of topics in the context of adolescence. The fact that adolescents attend schools provides an ideal opportunity for gathering whole network data (i.e., a given school comprises an easily defined population) and has made this stretch of the life course an area of lively research.

**Readings:**


Optional readings:

WEEK 9, March 11
Sexual Networks
Sexual health, particularly as pertains to the spread of sexually-transmitted disease, has long been of central interest to social network analysts. Sexual activity can naturally be conceptualized as a tie between actors; thus knowing who has sex with whom gives us a straightforward social network. Much of the literature on sex and social networks comes out of the path-breaking National Longitudinal Study of Adolescent to Adult Health (Add Health) study, the set of data that was featured so prominently in many of last week’s readings. One of the longstanding goals of this literature is to document and understand the structure of a sexual network. Knowing the system’s structure, for instance, can help shape public health interventions (e.g., safer sex techniques) by targeting particular nodes that have unique influence on many others in the network.

Readings:
WEEK 10, March 18

Works in Progress

This week will consist of 10 minute presentations on work in progress toward the final paper. Presentations should use slides to convey an overview of the paper topic, provide perspective on the research problem, sketch the general argument of the paper, show preliminary findings (if applicable), and outline next steps in the project. This is an opportunity for classmates to provide feedback and offer suggestions.

WEEK 11, March 25

Health and aging in network context

Health challenges are an important part of the aging process. Studies on health and aging has long recognized the importance of social relationships and social support for helping people prolong life and adapt to functional decline, but a new groundswell of research has begun to incorporate a more explicit social network approach, taking into account the structure and dynamics of people’s social connections. Several readings for this week use ego-centric network data to explore the consequences of network change and diversity for senior’s physical and mental well-being, while the third applies a network approach to the topic of caregiving for family members with dementia.

Readings:

Optional readings:


**DRAFT OF RESEARCH PAPER DUE**

**WEEK 12, April 1**

**Networks in health policy and healthcare organizations**

The connectivity of organizations can be understood with a social networks framework. This final week will consider how the structure of agencies, institutions, or other organizational actors affects the delivery of health care and shapes population health.

**Readings:**


**PEER REVIEW EXERCISE DUE**

**FINAL PAPERS DUE APRIL 19 BY 5P**