HPM 885
Health Services/Health Policy Research Methods II
Spring 2019

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Office: McG 1106F
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Day/Time: Thurs 9:30am-12pm
Location: Rosenau 123
Office Hours: By appointment

3 credits
Prerequisite: HPM 884

HPM 884 is the first of a three-course methods sequence in becoming a qualified PhD candidate in Health Policy and Management. HPM 884 is analogous to an art appreciation course, introducing the traditions, museums, and masterworks in this field. HPM 885 is the second step. It helps you become an artist via hands-on learning about principles of evidence-inference, what’s in the toolbox of this field, and how to select tools to fit a variety of research tasks. HPM 886 is the third course in this sequence, letting you drill down deeper into discipline-specific methods and analysis strategies akin to advanced artistry techniques in classical or modern art.

Course Rationale and Objectives

Methods of inquiry are the foundation of any scientific field. Methods define the kinds of issues that are researched in a field, the tools used to investigate those issues, and the nature of the answers that are considered acceptable by the field’s scholars and thought leaders. This course explores the motivations for, and strategies of, research in this field. Its intent is to establish a foundation for further methodological exploration so that you can delve into discipline-specific methodological issues or statistical techniques in HPM 886 as well as other advanced courses. It will also help you to prepare for your comprehensive exams and for developing your dissertation proposal in HPM 994.

This course focuses on how to conceptualize and compose answerable, policy-relevant, and ethical health services/policy research questions, hypotheses, and research plans. The logic and rationale of four main research approaches are featured: experiments, available data, survey research, and field research. Several cross-cutting themes related to design, bias, measurement, sampling, data collection, and analysis are considered. Quantitative, qualitative, and mixed-methods strategies are highlighted. Specific objectives are:

- To explore the logic of scientific methods and the nature of the research process
- To examine methodological issues that commonly arise in health services research
- To learn how to distinguish between strong and weak research designs
- To understand the pros and cons of different research approaches
- To practice designing your own study

Course Outcomes

By the end of this course, you should be able to:

- Describe scientific inquiry as conceived by prominent philosophers of science, and discuss how the actual process of scientific inquiry diverges from their descriptions and prescriptions
- Explain your own view of what we can (and cannot) realistically expect from scientific inquiry
• Discuss how the institutional context of health services research and the practice of science itself shapes what does (and does not) get studied by health services researchers
• Explain and defend the value of using theory to frame research problems, select methods, and interpret results
• Develop interesting and researchable questions
• Formulate testable hypotheses
• Select study designs and samples appropriate for your research questions
• Describe the concepts of internal and external validity and recognize common threats to both
• Identify the qualities of good measures
• Identify and rectify common problems in drawing inferences from research findings
• Discuss how research and practice can (and cannot) inform one another

Course Structure

The course meets once each week for 2.5 hours on Wednesdays from 11:15-1:45. Class sessions consist of a mixture of instructor-led presentations, student teamwork experiences, and several guest presentations by UNC faculty with specialized knowledge of selected research strategies and techniques. Typically, sessions will be structured as follows:

Discussion of students’ experience with the topic (5 minutes)
Instructor lecture (15 minutes)

Reading reflections discussion and critique (25 minutes)
Break (10 minutes)
Peer group discussion (30 minutes)
Guest lecture (1 hour)*

*When we do not have a guest lecturer, we will extend other components of the session.

The course opens with an examination of the philosophical basis for the analytical methods used in health services research and the basic purposes (and interests) that these methods serve. Next, we focus on the components of the research process itself: design, measurement, and analysis. The course concludes with an investigation of selected practical issues that arise in the conduct of health services research.

Roles and Responsibilities

This course invokes an adult learning model. My primary role is to help create an effective learning environment, act as an expert resource, help you find other resources, and facilitate learning.

Your role is to be an open learner and to help each other learn. You do this by keeping up with the readings, participating in class discussion, completing required assignments, and helping each other to add value to the course.

To take full advantage of the learning experience in this course, you need to bring an openness to learning, a willingness to explore possibilities (both alone and with others), a desire to be engaged in thoughtful reflections about the readings, and the motivation to explore and develop your own line of research. To make this class useful, you need to spend time outside of class pursuing additional readings about research methods, reading health services research articles in which different methods are used, and being prepared to participate in class discussions. You should also make a habit of attending mini-course offerings and
research workshops at the UNC Odum Institute for Social Research, one of the premiere social science educational resources in the U.S.

Course Requirements

Readings and class discussion

As with other doctoral courses, this course has a substantial amount of readings. You are expected to come to each class prepared to discuss the readings assigned for that class. You are expected to raise questions, debate issues, share experience, and relate readings to each other and to other courses that you have taken. You are also expected to think about researchable questions and discuss them in class.

Furthermore, you are strongly encouraged to read beyond the assigned articles and book chapters. The assigned readings are primarily to form a common basis for discussion.

Peer group discussion

To facilitate teamwork, discussion, and evaluation of various assignments during the semester, each student will be assigned to one of three peer groups, as follows:

<table>
<thead>
<tr>
<th>Peer groups</th>
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<tbody>
<tr>
<td>Group A</td>
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<tr>
<td>Group B</td>
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<tr>
<td>Group C</td>
</tr>
</tbody>
</table>

Peer groups will discuss critiques and components of the final paper during class. The purpose of discussing critiques is to learn from others’ approaches and conclusions. The purpose of discussing the final paper is to get feedback and suggestions that you can incorporate into your draft.* I encourage each group member to read each other’s research proposal components. This will give you preliminary feedback on your research proposal before I read it, and it will get you in the habit of seeking feedback from peers prior to submitting deliverables.

Peer groups will work together to develop proposals in class. Peer group discussion topics are listed in the course schedule at a glance below.

*The more well thought-out each component of your final paper, the better feedback you will get from your peer group members. I recommend that you have something in writing to draw from. The most efficient peer groups will circulate written materials prior to class to promote more fruitful discussion; although this is not required, the amount of effort you put into peer group discussions will be taken into account for grading purposes (see grading section below).

Written assignments

Critiques

You will conduct four critiques of the articles or proposals listed below regarding a specific aspect of the research design employed. Critiques are one of the two ways in which you will have the opportunity to demonstrate the first HPM PhD competency “Identify and appropriately apply theoretical knowledge and
conceptual models in support of health services/health policy research.” The critiques must be typewritten, double-spaced, and no more than three pages long. An explanation of what constitutes a worthwhile critique is provided on the last two pages of this syllabus. Due dates are listed in the course schedule below.

Critique assignments

<table>
<thead>
<tr>
<th>Paper to be Critiqued</th>
<th>Description</th>
<th>Approximate Length</th>
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</thead>
<tbody>
<tr>
<td>Anonymous. “Mapping the survivorship care landscape in the transition from active treatment to long-term follow up care.”</td>
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<tr>
<td>Anonymous. “Case Management for Frequent Users of Healthcare Services in Primary Care: A Qualitative Study of Implementation Issues.”</td>
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</tbody>
</table>

1You will find these papers in the “Assignments” section of Sakai.

Please do not include your name on any Critique submissions. Instead, please provide your PID. Please use the following naming convention for the document files that you submit: “[Assignment]_PID” (e.g., Critique 1_700000000)

Research Proposal, Peer Review, and Response

The second set of written assignments relates to a research proposal that focuses on a topic of your choosing. This set of assignments is one of the two ways in which you will have the opportunity to demonstrate the first HPM PhD competency “Identify and appropriately apply theoretical knowledge and conceptual models in support of health services/health policy research.” Your research proposal should be comprised of each of the topics that we cover in class:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Approximate Length</th>
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<tbody>
<tr>
<td>Specific aims</td>
<td>Describe a problem in health services that interests you. Identify one or several research questions relevant to that problem. Explain why the research problem is interesting and significant. This should include a statement of the problem(s), research question(s), and rationale for the proposed study.</td>
<td>1 page</td>
</tr>
<tr>
<td>Significance</td>
<td>Summarize relevant empirical findings on your research topic, with justification of your study’s new contributions.</td>
<td>1 page</td>
</tr>
<tr>
<td>Innovation</td>
<td>Explain how your proposed research is novel in terms of its clinical focus, theory, methodology, interventions, etc.</td>
<td>&lt;½ page</td>
</tr>
<tr>
<td>Theoretical framework and hypotheses</td>
<td>Propose a general theoretical framework that is relevant to your research questions and derive a series of hypotheses from that framework that are related to your research question(s) if appropriate. Note that the theory does not have to be a “formal” theory but should represent an overarching perspective, story, or</td>
<td>½ page</td>
</tr>
</tbody>
</table>
Research plan

Propose a research design for your study, including discussion of how the design fits for the purpose of the study, the strengths of the design, potential threats to internal validity, and how you plan to deal with the threats. Sections to include:

- Design
- Sample and sampling
- Key measures
- Data collection or data source(s)
- Analytical approach
- Methodological limitations

1Your research proposal should be 6 single-spaced pages and use 11-point Arial font. Please see https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/format-attachments.htm#font for font instructions.

Examples of high-quality research proposals can be found on Sakai in the “Resources/Peer review, writing” section. I have also compiled some tips for RPs at the end of this syllabus.

You will submit each component, progressively, over the course of the semester; a first complete draft of the research proposal for peer review (see below); and a final draft of the research proposal revised based on the peer review. Due dates are listed in the course schedule below. Research proposals comprise 50% of your grade. Although your research proposal grade will be tied primarily to the final product, I will take into account its development (submitted components, work with peer groups, improvement over time).

The first draft will be assigned to one of your classmates for peer review and returned to you for response along with a final, revised draft of your research proposal. I will make every effort to assign your draft to a classmate with a research topic that is similar to yours. If you have suggestions regarding a classmate to whom your draft should be assigned, please let me know (although I cannot ensure that I will choose the person whom you suggest). The peer review must be formatted and worded as if it were to be submitted to an academic journal. A copy of the HSR Guidelines for Reviewers, Meyer’s (1995) “Balls, strikes, and collisions on the basepath: Ruminations of a veteran reviewer,” and examples of peer reviews are available on Sakai under “Resources/Peer review, writing” to help you prepare constructive, high quality reviews. I will also provide feedback on all first drafts of the research proposal.

You will then have 2 weeks to respond to your reviewers’ (mine and a peer’s) concerns in a professional cover letter format (see examples on Sakai under “Resources/Peer review, writing”) and make final revisions before turning in your final draft.

Due dates are listed in the course schedule below.

Important notes on style:

- Please ensure that your writing confirms to all of the elements described in “Stylish Writing for the HPM Methods Sequence” (Domino & Stearns, 2009).
• Eliminate typos, spelling errors, and grammatical errors before submitting writing assignments. Doing so will help me to focus on the content of your work. If I cannot focus on the content of your work, your grade will suffer.

Grading*

Although grades in the course will be unavoidably subjective, they will be determined on both the quantity and quality of your effort as well as the level of your understanding of the course material. Specifically, the final grade will be determined based upon the following criteria:

- Critiques (40%)
- Peer review (10%)
- Research proposal (45%)
- Response to peer review (5%)

*Late submissions will result in one letter grade decrease for each 24-hour increment (with the exception of disability-related extensions). Assignments are due before class on the day identified in table 4. As such, for assignments not submitted before class, the first letter grade decrease takes effect the minute that class begins.

Course Resources

Website

HPM 885 has a Sakai site (See http://sakai.unc.edu for HPM885.001.SP17). This syllabus, assigned readings, and other information are all available on the HPM 885 page.

Be sure to check that the email address Sakai has for you is correct. After accessing Sakai, click on the “My Workspace” tab on the top left of the home page and then in the list on the left of the page click on “Profile.” If you need to change your email address, click on “Edit Contact Information” and follow the directions. Note that you need to use the same email address in both Sakai and the On-Line Campus Directory.

Course Texts


(You may purchase this text on Amazon.com or other online retailers. You may also find it online for free.)

Required readings are accessible on the Sakai (https://sakai.unc.edu/). You are expected to read all those that are required (see the Reading List on pages 13-21) in preparation for the class. You may email me for ideas about additional readings regarding specific topics on the syllabus that interest you.

UNC-CH Resources

The UNC-CH Learning Center (http://learningcenter.unc.edu) provides assistance and tutoring in expository writing. All students are encouraged to make use of this resource regardless of whether English is a first language or not. The Odum Institute (http://www.irss.unc.edu/odum/home2.jsp) offers a variety of short courses and other social science research training opportunities, and NIH has archived content from its course

Valuing, Recognizing, and Encouraging Diversity

Promoting and valuing diversity in the classroom enriches learning and broadens everyone’s perspectives. Inclusion and tolerance can lead to respect for others and their opinions and is critical to maximizing the learning that we expect in this program. This may challenge our own closely held ideas and personal comfort zones. The results, however, create a sense of community and promote excellence in the learning environment. Diversity includes consideration of (1) the variety of life experiences others have had, and (2) factors related to “diversity of presence,” including, among others, age, economic circumstances, ethnic identification, disability, gender, geographic origin, race, religion, sexual orientation, social position. This class will follow principles of inclusion, respect, tolerance, and acceptance that support the values of diversity.

Disability Accommodation

UNC-CH supports all reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability, or a pregnancy complication resulting in difficulties with accessing learning opportunities.

Counseling and Psychological Services

CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: https://caps.unc.edu or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more.

Course Evaluation

HPM participates in the UNC-CH’s online course evaluation system, enabled at the end of each semester by Scantron Class Climate. Your responses will be anonymous, with feedback provided in the aggregate. Open-ended comments will be shared with instructors, but not identified with individual students. Your participation in course evaluation is an expectation, since providing constructive feedback is a professional obligation. Feedback is critical, moreover, to improving the quality of our courses, as well as for instructor assessment.

I will conduct an independent course evaluation via Qualtrics before spring break. The purpose of the evaluation is to gather feedback from students regarding how I can improve the course in the second half of the semester.

UNC Honor Code

The principles of academic honesty, integrity, and responsible citizenship govern the performance of all academic work and student conduct at the University as they have during the long life of this institution. Your acceptance of enrollment in the University presupposes a commitment to the principles embodied in the Code of Student Conduct and a respect for this most significant Carolina tradition. Your reward is in the practice of these principles. Your participation in this course comes with the expectation that your work will be completed in full observance of the Honor Code. Academic dishonesty in any form is unacceptable, because any breach in academic integrity, however small, strikes destructively at the University’s life and
Please note that publicizing any of this course’s materials constitutes an honor code violation. If you have any questions about your responsibility or the responsibility of faculty members under the Honor Code, please consult with someone in either the Office of the Student Attorney General (966-4084) or the Office of the Dean of Students (966-4042). Please see “The Instrument of Student Judicial Governance” (http://instrument.unc.edu).
<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Topic</th>
<th>Guest speaker</th>
<th>Peer Group Discussion Topic</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan 10</td>
<td>Overview &amp; Nature of Scientific Inquiry</td>
<td></td>
<td></td>
<td>Introductions</td>
</tr>
<tr>
<td>2</td>
<td>Jan 17</td>
<td>Making Sense of the Literature: Formulating Research Questions</td>
<td>A. Damon</td>
<td>RP: Specific aims</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Jan 24</td>
<td>Use of Theories &amp; Formulation of Hypotheses</td>
<td></td>
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<tr>
<td>4</td>
<td>Jan 31</td>
<td>Designing Useful Studies 1a: Experimental Designs</td>
<td>M. Weinberger</td>
<td>RP: Significance</td>
<td></td>
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<tr>
<td>6</td>
<td>Feb 14</td>
<td>Designing Useful Studies 1c: Quasi-Experimental Designs, continued (Regression Discontinuity)</td>
<td>T. Domina</td>
<td>RP: Significance and innovation</td>
<td></td>
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<tr>
<td>8</td>
<td>Feb 28</td>
<td>Practicing Experimental/Quasi-Experiment Designs</td>
<td></td>
<td>Experimental and quasi-experimental response to PA-12-275</td>
<td></td>
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<tr>
<td>9</td>
<td>Mar 7</td>
<td>Designing Useful Studies 3: Generating valid samples</td>
<td>G. M. Holmes</td>
<td>RP: Theoretical framework and hypotheses</td>
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<td></td>
<td>Mar 14</td>
<td>SPRING BREAK</td>
<td></td>
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<tr>
<td>10</td>
<td>Mar 21</td>
<td>Designing Useful Studies 2: Survey Research</td>
<td></td>
<td>RP: Research plan</td>
<td>RP: Theoretical framework and hypotheses</td>
</tr>
<tr>
<td>Session</td>
<td>Date</td>
<td>Topic</td>
<td>Guest speaker</td>
<td>Peer Group Discussion Topic</td>
<td>Assignment Due</td>
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<tr>
<td>11</td>
<td>Mar 28</td>
<td>Measurement: Defining and Representing Constructs</td>
<td>A. Stover</td>
<td>Critique: “Mapping the survivorship ...”</td>
<td>Critique: “Mapping the survivorship ...”</td>
</tr>
<tr>
<td>12</td>
<td>Apr 4</td>
<td>Large, Secondary Healthcare Databases</td>
<td>S. Greene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Apr 11</td>
<td>Designing Useful Studies 4: Qualitative Approaches</td>
<td>Qualitative response to PA-12-275</td>
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<tr>
<td></td>
<td>Apr 12</td>
<td>NO CLASS; DISPLAYING ASSIGNMENT DUE DATE</td>
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<tr>
<td></td>
<td>Apr 15</td>
<td>NO CLASS; DISPLAYING ASSIGNMENT DUE DATE</td>
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<tr>
<td>15</td>
<td>Apr 25</td>
<td>Community Relations, Engagement, and Participatory Research</td>
<td>L. Quarles, G. Lewis, A. Matthews; Faculty Panel</td>
<td></td>
<td>RP: Final full draft; response to reviewer</td>
</tr>
<tr>
<td>16</td>
<td>May 2</td>
<td>Session TBA to comply with final exam regulations</td>
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</tbody>
</table>

1Useful peer group discussions will require working significantly ahead of due dates. The goal of this is to give you two rounds of feedback on each RP component.

2All assignments are due before class begins on the due date.

RP = research proposal
Readings and Probing Questions

<table>
<thead>
<tr>
<th>Session</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>The Nature of Scientific Inquiry</td>
</tr>
</tbody>
</table>

What is “science”? What constitutes “scientific knowledge”? What do we mean by “scientific method”? What can we expect of science?


Planet Money. “The Experiment Experiment.” 
http://www.npr.org/sections/money/2016/01/15/463237871/episode-677-the-experiment-experiment

http://www.socialresearchmethods.net/kb/philosophy.php. (Please read all webpage sections in this chapter.)


Readings survey: https://unc.az1.qualtrics.com/jfe/form/SV_bPHFOiDSWWARczz

2 Making Sense of the Literature: Formulating Research Questions

How do you move from a research topic to a research question? What makes a research question interesting? How do you efficiently identify, retrieve, and review the existing literature on a research question? Where does your research question fit within the existing literature?

http://www.socialresearchmethods.net/kb/resprob.php. (Please read all webpage sections in this chapter.)


Morrissey, J. Framing Research Questions: The PICOTS Approach, August 2013 (2 pgs.)
In addition, please read the following article, which we will critique collaboratively as practice for the critique:


Guest Speaker: Alyssa Damon, “Interpreting P-values”


Poole, C. (2001) “Low p-values or narrow confidence intervals: Which are more durable?” Epidemiology 12:3.


Readings survey: https://unc.az1.qualtrics.com/jfe/form/SV_41H88TyUjDw13UN

Uses of Theories & Formulation of Hypotheses

What do we mean by “theory”? What good is theory? What is a good theory? What’s the difference between a research problem and a researchable hypothesis? What’s the difference between a hypothesis and a prediction? How do scientists come up with hypotheses?


Birken, S. A., Powell, B. J., Presseau, J. “Uses of frameworks and theories in implementation science.”


Examples of nice theory application:


Readings survey: https://unc.az1.qualtrics.com/jfe/form/SV_2gXZzLLjCiI5Mr3

4 Designing Useful Studies 1a: Experimental Designs

What constitutes a good study design? What role do theory, hypotheses, and predictions play in selecting a study design? What are the most common “true” experimental designs and how does each address common threats to internal validity?


**Guest Speaker**: Hayden Bosworth, “Experiments in Health Services Research”


### 5 Designing Useful Studies 1b: Quasi-Experimental Designs

What are the main features of quasi-experimental designs and how are they different from those of experimental designs? What are the threats to internal validity? What are the strategies to reduce threats to internal validity? What are the tradeoffs among different quasi-experimental designs?


**Guest Speaker**: Marisa Domino, “Quasi-Experiments: A Mental Health Services Research Approach”


**Readings survey**: [https://unc.az1.qualtrics.com/jfe/form/SV_6MrWyZKU1Qt4AaV](https://unc.az1.qualtrics.com/jfe/form/SV_6MrWyZKU1Qt4AaV)
Regression discontinuity design (RDD) is a quasi-experimental design that is underutilized in health services research, potentially because we don’t offer sufficient training in the method. RDD is used more often in education research, so we will leverage the expertise of a colleague from the School of Education to take a more careful look at this potentially powerful design for health services research.


**Guest Speaker:** Thurston (Thad) Domina, “Understanding the effects of middle school algebra: A regression discontinuity approach”


**Readings survey:** [https://unc.az1.qualtrics.com/jfe/form/SV_8okSqNcPNmsO2mp](https://unc.az1.qualtrics.com/jfe/form/SV_8okSqNcPNmsO2mp)

**Designing Useful Studies 1d: Quasi-Experimental Designs, continued**

**Guest Speaker:** Justin Trogdon

Imbens and Wooldridge (2009) Sections 1, 2.1-2.2, and 3.1.


**Practicing Experimental and Quasi-Experimental Designs**

Please read the following PA from NIH before the 2/17 class. Think about how you would respond with an experimental or quasi-experimental research design:
9  **Designing Useful Studies 3: Survey Research**

What are the pros and cons of survey research in comparisons to experimental and quasi-experimental designs? What are the threats to internal validity? What are the strategies to reduce threats to internal validity?


**Readings survey:** [https://unc.az1.qualtrics.com/jfe/form/SV_82kCeMYQ7FWL3QV](https://unc.az1.qualtrics.com/jfe/form/SV_82kCeMYQ7FWL3QV)

10 **Designing Useful Studies 3: Available Data**


**Guest Speaker:** Justin Trogdon, “Administrative Data in Health Services/Policy Research”


Readings survey: https://unc.az1.qualtrics.com/jfe/form/SV_4YeNy892OqVTzVP

11 Generating Valid Samples

How do you effectively sample for low prevalence diseases? How do you sample reluctant populations like physicians? How do you sample hard-to-reach populations?


Guest Speaker: Mark Holmes, “Statistical Power Considerations for Health Services Research”


Readings survey: https://unc.az1.qualtrics.com/jfe/form/SV_5AyM73BIpHZNd5j

12 Measurement: Defining and Representing Constructs

What does it mean to measure? What makes a good measure? Why is it so hard to make good measures? What can you do to increase confidence in your measures?


Wright, B. D. (1989) “Observations are Always Ordinal; Measurements, However, Must Be Interval.” Archives of Physical Medicine Rehabilitation, 70(12): 857-860.


**Guest Speaker:** Angela Stover, “PROMIS: Measurement of Patient-Reported Outcomes”


**Readings survey:** [https://unc.az1.qualtrics.com/jfe/form/SV_agHGxgpaEx4qpRr](https://unc.az1.qualtrics.com/jfe/form/SV_agHGxgpaEx4qpRr)

13 **Large, Secondary Healthcare Databases**

PowerPoints in National Datasets for HSR folder


**Guest Speaker:** Sandra Greene, “Large, secondary healthcare databases”


**Readings survey:** [https://unc.az1.qualtrics.com/jfe/form/SV_9QSDDQohZn3SgsZ](https://unc.az1.qualtrics.com/jfe/form/SV_9QSDDQohZn3SgsZ)

14 **Designing Useful Studies 4: Qualitative Approaches**

How do you manage qualitative data collection? How do you develop and test theory with qualitative data? How can you organize and display qualitative data to show patterns and trends?


https://implementationscience.biomedcentral.com/articles/supplements/volume-13-supplement-1

Xavier U. Library. (2012) “Qualitative vs. quantitative research.”


Please reread the following PA from NIH before the 3/30 class. Think about how you would respond with a qualitative research design: http://grants.nih.gov/grants/guide/pa-files/PA-12-275.html

Readings survey: https://unc.az1.qualtrics.com/jfe/form/SV_9mGEjhOHFoXfj1z

15 Mixing Methods
Would the mixing of qualitative and quantitative methods produce the “best of both worlds”? Why and why not? What are the considerations for mixing different research methods?


http://mixedmethodsappraisaltoolpublic.pbworks.com/w/page/24607821/FrontPage

**Guest Speaker:** Paul Mihas


**Guest Speaker:** Jennifer Leeman, “Systematic Reviews of Mixed Methods”


**Readings survey:** https://unc.az1.qualtrics.com/jfe/form/SV_eUNrvTAAaNqfKYTL

16 Community Relations, Engagement, and Participatory Research

Obtaining data to conduct planned research often involves establishing relationships with stakeholders such as policymakers, administrators, practitioners, patients and caregivers. This week, we explore engaging those stakeholders, negotiating with them in an ethical manner, and involving them in research to the extent that they desire.


Bauer, M. S. & Weaver, K. “Partnering with health systems leadership to develop a randomized, controlled implementation trial.” Veteran's Affairs Health Services Research and Development Cyber Seminars.

[http://www.hsrdr.ehsv.am.gov/for_researchers/cyber_seminars/archives/1244-notes.pdf](http://www.hsrdr.ehsv.am.gov/for_researchers/cyber_seminars/archives/1244-notes.pdf);

**Guest speakers:** Lisa Quarles and Ginny Lewis, Community Engagement Coordinators, Community Academic Resources for Engaged Scholarship; Allison Matthews, Postdoctoral Fellow, Institute for Global Health and Infectious Disease. “Community Engagement”


**Readings survey:** [https://unc.az1.qualtrics.com/jfe/form/SV_0kSrs7va7Ozm2aN](https://unc.az1.qualtrics.com/jfe/form/SV_0kSrs7va7Ozm2aN)
Acknowledgements

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Critiques and Their Rationale

What is a Critique?

A critique is a short paper that discusses the weaknesses of a paper, including possible sources of bias perhaps introduced by a particular methodological approach or a faulty methodological procedure. Bias is ultimately expressed in the conclusions that investigators make, and it will be your job to show the impact of particular methodological weaknesses on the conclusions drawn.

What Do I Intend for You to Learn in Writing a Critique?

I assign critiques because students must understand how knowledge is generated in our field. A way to understand what we hope to accomplish can be illustrated by the differences between two levels of understanding in our field. In one, students are expected to master a body of information and to learn accepted wisdom in our field. In the other, students are expected to know the underlying bases for the information and to comprehend the methodologies that produced the accepted wisdom. An example of the difference is in the notion of a physician surplus. One often hears the assertion that the United States has a physician surplus, and one learns that the research that yielded this conclusion was the GMENAC study conducted in late 1970s. In many courses and in many readings, this conclusion—a physician surplus—is asserted as fact. The skill the instructor wishes students to develop in HPM 885 is to look behind assertions to dissect the methodologies that underlie conventional wisdom in this instance, now 30+ years old, that a surplus exists. The same could be said for any number of other topics in our field.

This is the academic route to original sin and innocence lost. Through a process of close examination of research reports, students see methodological flaws and omissions; they see agendas and ideological positions shrouded behind the veil of apparent methodological rigor; they see substantive topics chosen because they can be studied more readily than others; they see the role of funding agencies in setting priorities, thus limiting examination of other potentially interesting, or even more important, topics.

In short, students are taught to assess research quality by applying criteria that help them decide what in a study can be trusted and what cannot.

How Do You Write a Critique?

Critiques are an efficient way to learn about the interplay of substance and method. Critiques require you to explain an issue or describe a problem clearly in writing.

A critique is ideally written as follows: First, describe succinctly what the paper aims to do, e.g., “This paper aims to describe a study that test the hypothesis that physician practice style explains a large part of the variation in hospital admission rates in Arizona during the period 1984-1990.”

Second, identify any strengths of the paper. This is potentially as important as identifying weaknesses of the paper. All research is flawed. Some weaknesses can be minimized by strengthening methods, but some weaknesses are impossible to avoid. It is possible that a study is flawed beyond repair and cannot be improved to the point of publishability (e.g., new data would have to be collected; participants would have to be assigned to intervention and control groups in a new way). In many cases, though, papers are salvageable, and they create new knowledge despite their limitations, so the goal of your critique should be to suggest approaches for strengthening the paper to the extent possible and guide the authors in acknowledging the unavoidable limitations of their study. Consider what the study contributes despite the unavoidable limitations, if applicable.
Third, identify the major issues that you think are most important to discuss. Major issues are those that have implications for the conclusions that are drawn in response to the research question(s). Minor issues do not have direct implications for the conclusions. Once you identify the problems that you think are important, discuss them and their implications. This latter exercise is absolutely critical. It is not enough to say, “The study’s measures of utilization are weak.” You have to show how and why they are weak, and how this weakness bears on the credibility of the study’s conclusions.

Fourth, if applicable, explain the implications of the study’s weaknesses for theory and policy. Does the study really test the stated hypothesis or hypotheses? Does the study support one or another path for policy? Does it support anything at all? What I am really after here is for you to think through what you have just discussed about the study and relate it more broadly to theory or policy.

Fifth, for each issue that you identify, to the extent possible, suggest how the authors might improve the study. This relates to the second step described above and demonstrates a refined understanding of research methods. It is one thing to identify and understand a study’s weaknesses; it is another to be able to suggest potential solutions. An additional nuance: it’s important to identify an ideal approach to improving the study as well as a feasible one! Identifying an ideal approach isn’t helpful alone if it’s not also feasible, so both may be necessary.
Tips for writing research proposals

These are in no particular order, and far from comprehensive! See http://www.grantcentral.com/workbooks/national-institutes-of-health/ for grant writing resources.

General writing advice

- Gopen's style: end each sentence (and paragraph) with the point of emphasis, and pick up in the next sentence (and paragraph) with that point. This means that passive voice is OK sometimes!
  - Do: “Survivorship care plan (SCP) effectiveness may be limited by poor implementation. SCP implementation is limited by providers’ beliefs that SCPs do not benefit survivors and a lack of support from cancer program leaders.”
  - Don’t: “Poor implementation limits SCP effectiveness. SCP implementation is limited by providers’ beliefs that SCPs do not benefit survivors and a lack of support from cancer program leaders.”
- We → I – “I” is OK if you’re the only investigator (which, in this case, you are!)
- Utilize → use
- Use consistent terms / words as visual symbols – this isn’t creative writing; it’s scientific writing.
- No footnotes, please!!
- Normal to feel like you’ve drifted from what’s important
- Data = plural – i.e., data were, not data was

Specific aims

- A good rule of thumb is that each aim should be independently publishable.
- Only raise issues that you plan to address, and address all issues that you raise
- Rationale: To fill a gap in the literature. There are lots of gaps in the lit that we don’t care about filling! There should be some population health rationale for your study.
- Aims are to accomplish something, not to use a method.
- Make an argument, finish it, and then move onto the next logical argument that moves you toward convincing the reader that your research is the next logical step in addressing the problem that you’ve identified
- Aims structure
  - Paragraph 1:
    - Start with 10,000-foot view of the population health problem
      - no matter how distant from your topic (you’ll need to link them, of course)
      - this is the 'blood on the tracks'
      - Must be linked logically to what you’re actually interested in – you’re telling a story
    - End with some potential solution to the problem that relates to your topic
  - Paragraph 2:
    - Begin by problematizing the potential solution that you laid out at the end of paragraph 1. This lays the tracks for the rationale for your RQ.
    - End with your RQ and why it will move us toward resolving the problem.
  - Paragraph 3: overview of what you’ll do in your study and how you’ll accomplish it.
  - Aims (with or without hypotheses, depending on your project)
  - Impact paragraph – what do we get if your research is completed? Improved care processes? Outcomes? A preliminary step toward one of these things? Preliminary data for a bigger grant that will achieve those goals? The idea is to convince the funder that it’ll pay off for them to give you money. Talk about the short-term goal of your proposal and the long-term goal
(should end at the big part of the hourglass – i.e., circle back to population health issue that you raised in paragraph 1)

**Significance**

- Tie lit review tightly to your proposed research - make explicit links

**Theoretical framework**

- Explicitly tie your RQs/aims to framework.
- Theory is a tool. Don’t put it on a pedestal! Make it your own!! You can refer to constructs in the model parenthetically initially, but focus on the relationships among constructs in your research.
- Framework needs to address all aims, not just subset.
- Don’t bring up new constructs in the theoretical framework section. Only talk about constructs of interest.

**Research strategy**

- Include a section at the end of your proposal called “potential problems and solutions.”
  - This is analogous to a limitations section of a manuscript.
  - Think about the RQs you’re trying to answer and the extent to which you can, validly and reliably, given your methods. (See Trochim)
  - Have a justification for every limitation you have in your paper:
    - Acknowledge the limitation
    - Discuss its implications
    - Have a "But" sentence: that is, you say, the limitation isn't all that damaging in this case because...
- Organize sections by aim (across whole section or within subsection depends)