Course Syllabus

Translational and Outcomes Research in Health and Health Care

PHS 709

Fall 2014
Tuesday, 4 p.m. - 6:30 p.m.
Room 210-05 University Bay Office Building (800 University Bay Dr., Madison WI)
University of Wisconsin-Madison

Course Organizer: Maureen Smith, MD, PhD
Office address: Rm. 210-05 UBOB (800 University Bay Dr., Madison, WI)
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Email: maureensmith@wisc.edu
Office hours: Generally available following class, or by appointment
Prerequisites: No formal prerequisites
Instructor: Maureen Smith, MD, PhD
TA: Tola Ewers, MS, PhD lmewers@wisc.edu (402-613-7589 cell/text)

Course Objectives

The objectives of this course are:

1) To understand the conceptualization of translational and outcomes research in health and health care.

2) To illustrate basic concepts and methods in translational and outcomes research as applied to current issues in health and health care.

3) To understand the diverse perspectives on health and health care that can be used to inform translational and outcomes research in different organizations, including those within community settings.

Course Administration and Readings

Dr. Smith and a teaching assistant will be responsible for all administrative issues and grading. A course website is set up on the LEARN@UW system. This is the electronic course home. The main purpose of this website is its function as a repository of downloadable copies of the course readings. The readings will be organized by weekly reading assignments. Staying current with assigned readings and participation in class discussions is required. Readings listed as “optional” are not required, but do provide supplemental information that may be
helpful. Where appropriate, copies of presentation slides will also be uploaded to Learn@UW, although not all presentations will have slides, so good note taking will be important. Occasionally, announcements may be posted under the “News” heading on the course homepage. Students should check the course website frequently. Students may audio record lectures for their own personal use (i.e., not for distribution) with permission of the lecturer. In the event a student expects to be absent, prior arrangements with the TA may allow for a digital recording of the class conversation to be made and then posted on Learn@UW.

**Course Environment and Academic Integrity/Misconduct**

**Collaborative Environment and Academic Misconduct:** This course is designed to facilitate collaborative relationships, and as such, based on responses to the student survey, class members are placed into groups at the beginning of the semester for the two group projects that are carried out over the course of the semester. Efforts are made to pair students who: (1) share a common interest, (2) bring different training/professional/academic backgrounds to the group, (3) possess complementary skill sets/knowledge, and (4) represent various levels of academic development. While these are the ideal group determination guidelines, the variety of students who enroll in this class may preclude the process from meeting all of them.

Effective communication is an invaluable asset for collaborative relationships, and this class will facilitate the development of students’ communication skills. As noted below in the Course Requirements and Evaluation Section, students will be receiving a peer evaluation as a part of their grade; thus, it is recommended that group members decide the criteria they will be using to assess the efforts of the group members at the start of the semester. Establishing mutual expectations among group members is one strategy for a successful, collaborative relationship. While it is anticipated that there will be a range of academic development levels among students, each group member is expected to actively engage in the group projects and weekly class discussions about the project, to the best of their ability, and to not rely on the merit of the participation of other group member(s).

Please refer to this website if you have questions about student misconduct: [http://www.wisc.edu/students/saja/misconduct/misconduct.html](http://www.wisc.edu/students/saja/misconduct/misconduct.html)

**Non-discrimination Policy:** The UW-Madison is committed to creating a dynamic, diverse and welcoming learning environment for all students and has a non-discrimination policy that reflects this philosophy. Disrespectful behaviors or comments addressed towards any group or individual, regardless of race/ethnicity, sexuality, gender, religion, ability, or any other difference is deemed unacceptable in this class.

**Special Needs or Disabilities:** We wish to fully include persons with special needs or disabilities in this course. Please let Dr. Smith know if you need any special accommodations in the curriculum, instruction, or assessments of this course to enable you to fully participate.

**Civility Policy:** Members of the University of Wisconsin-Madison community are expected to deal with each other with respect and consideration. The civility policy for this course promotes mutual respect, civility and orderly conduct among the faculty, teaching assistants, and students. We do not intend this policy to deprive any person of his or her right to freedom of expression. Rather, we seek to maintain a safe, harassment-free work-place for the students, faculty, and teaching assistants. Positive communication is encouraged and volatile, hostile, or aggressive actions and language will not be tolerated. If the civility policy for this course is violated, then the individual is subject to removal from the class and possibly the course altogether. In addition, the proper authorities at the UW Departmental, School, and University levels will be notified of such behavior accordingly and further action may be taken if necessary.
Prerequisites: Students must obtain instructor’s permission to enroll in the class.

Student Evaluation: The grading of this course is based on two elements:

Mid-Semester Group Presentation (300 possible points)

- Groups of students will be determined by the faculty instructor at the beginning of the course based on a survey of your long-term research interests. During class, the groups are requested to exchange phone numbers and e-mail addresses and to schedule meeting times.

- For your group project, you must select a published randomized clinical trial that attempts to determine whether an intervention has a direct effect on physical or mental health. Note that these interventions are not limited to drugs, devices, or procedures but can also include activities such as exercise, weight loss, or meditation. Interventions are excluded that focus on improving health by identifying opportunities for motivating behavior/system change or strategies to encourage behavior/system change.

- At the course midpoint, each group will give a short presentation on the challenges in applying their clinical trial results to improve healthcare delivery and health outcomes. Specifically, identify the gaps in knowing how to apply these results and describe additional effectiveness and implementation research needed. Each group will have approximately 30 minutes (depending on the number of groups): 20 minutes for the presentation and 10 minutes for questions.

- The final reporting of the grade is a simple total of three components (faculty evaluation of the presentation, peer evaluation, and faculty evaluation of the individual student). Only the total grade is reported--since the peer evaluation is anonymous, we cannot reveal any of the grades for the three components. Students strongly support this policy.

  ✓ Faculty evaluation of the presentation: Dr. Smith will evaluate the total presentation for the purpose of assigning a group grade. The presentation will be graded on a basis of 0-100 points (with 100 being highest). The group grade for the presentation is awarded to each student in the group.

  ✓ Peer evaluation: Each student is required to evaluate every other member of his/her group. This peer evaluation is worth 100 points. Each student must apportion a fixed number of points to her/his peers. It is the students' responsibility to determine what criterion to use in this apportioning of points. Some of the criteria students may use could be time spent, useful discussion, work on research, work on presentation development, and general organizational skills. The peer evaluation form will be posted on Learn@UW. The form must be completed and returned at the time of your presentation.

  ✓ Faculty evaluation of individual student: Each student must present a component of the overall presentation. Dr. Smith will evaluate the student on a basis of 0-100. This component of the evaluation will be based on the presentation as well as the student’s previous participation during the course.

- Each student presents their completed evaluation of fellow group members as a “ticket” to the presentation. The evaluation form must be completed and returned prior to the presentation.

Final Group Presentation (300 possible points)

- During the final class, the group project is presented and defended.
• The final group presentation should be a complete analysis of the challenges in applying the results of their chosen clinical trial to improve healthcare delivery and health outcomes. Additional details will be provided after the first presentation. The types of information that will likely be included in the final presentation are:

  ✓ Describe an effectiveness, implementation, and/or policy research project that fills a significant gap that you identified in your mid-semester presentation.
  ✓ Describe which participants should be involved in the research and how (patients, organizations, consumers, clinicians).
  ✓ Identify appropriate methods to conduct the research and justify your choice.
  ✓ Identify possible human subjects or HIPAA concerns in conducting your research.
  ✓ Describe issues in presenting your results.
  ✓ Identify possible barriers to implementation of the results of your proposed research.

• The final reporting of the grade is a simple total of three components (faculty evaluation of the presentation, peer evaluation, and faculty evaluation of the individual student). Only the total grade is reported—since the peer evaluation is anonymous, we cannot reveal any of the grades for the three components. Students strongly support this policy.

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  ✓ Faculty evaluation of individual student: Each student must present a component of the overall presentation. Dr. Smith will evaluate the student on a basis of 0-100. This component of the evaluation will be based on the presentation as well as the student’s previous participation during the course.

• Each student presents their completed evaluation of fellow group members as a ticket to the presentation. The evaluation form must be completed and returned at the time of your presentation.

Grade distribution:

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<thead>
<tr>
<th>Letter Grade</th>
<th>Final Percentage</th>
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<tr>
<td>A</td>
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<td>D</td>
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Revised – 09-15-2014
Course Timeline Overview

Fri., Aug 29  Student Survey (available on Learn@UW) is due in Dropbox on Learn@UW by 4:30 p.m.

Tues., Sept 2  First class meeting. Groups for presentations announced. Students are requested to exchange contact information (phone numbers, e-mail addresses) and schedule meeting times

Thurs., Sept 4  Each group submits a PDF of their article for Worksheet 1 as well as answers to Worksheet 1 Questions 1 to 5 to the Dropbox on Learn@UW by 7 p.m.

Fri., Sept 5  Dr. Smith approves article or provides feedback on obtaining a different article; resubmit answers to Questions 1 to 5 for new article, if needed.

Wed., Oct 8  Each group submits Worksheet 1 to the Dropbox on Learn@UW by 9 p.m.

Fri., Oct 10  Dr. Smith provides feedback on Worksheet 1 in the Dropbox of the submitter who is responsible for sharing the feedback with other group members.

Tues., Oct 14  **Worksheet 1 presentations during class**
   Please use the PowerPoint template provided on Learn@UW as the starting point for creating your presentation. You may change the titles of the slides, change the slide layout, add graphics, etc. to meet your group’s needs, but the basic points addressed in the template must be included in your presentation.

Wed., Nov 19  Each group posts Questions 1-4 of Worksheet 2 in the Dropbox on Learn@UW by 9 p.m.

Mon., Nov 24  Dr. Smith provides feedback on Worksheet 2, Questions 1-4.

Wed., Dec 3  Each group posts Worksheet 2 in the Dropbox on Learn@UW by 9 p.m.

Fri., Dec 5  Dr. Smith provides feedback on Worksheet 2 in the Dropbox of the submitter who is responsible for sharing the feedback with other group members.

Tues., Dec 9  **Final presentations during class**
   Please use the PowerPoint template provided on Learn@UW as the starting point for creating your presentation. You may change the titles of the slides, change the slide layout, add graphics, etc. to meet your group’s needs, but the basic points addressed in the template must be included in your presentation.

Sample Group Project Topics

Below are examples of clinical trials. The references below are given only as a starting point for your research. You may use any references of your choosing to identify an appropriate clinical trial.


• Switching to another SSRI or to venlafaxine with or without cognitive behavioral therapy for adolescents with SSRI-resistant depression: the TORDIA randomized controlled trial. Brent D, Emslie G, Clarke G, Wagner KD, Asarnow JR, Keller M, et al. [Find It]

**Introduction**

**Week 1 - Tues, Sept 2 - Introduction to Translational Research**


**Week 1 - Tues, Sept 2 - Clinical and Community Outcomes Research - How?**


**Developing the Research Question**

**Week 2 - Tues, Sept 9 - Setting Priorities**


**Week 2 - Tues, Sept 9 - Policy Relevance**


Week 3 - Tues, Sept 16 - Effectiveness Research (Guest Speaker - Dr. Elizabeth Cox)

Dr. Elizabeth Cox is a tenured Associate Professor of Pediatrics and Population Health Sciences and an affiliate of the Health Innovation Program. Dr. Cox’s research seeks to improve children’s health outcomes by leveraging the voices of the children and their families. Currently, she’s the PI of a 3-year PCORI-funded, randomized trial comparing outcomes from usual care for type 1 diabetes to those resulting from a family-centered approach to self-management. She’s working with stakeholders including the children, their parents, their healthcare teams and two large healthcare institutions to evaluate and disseminate this family-centered approach. She is also wrapping up a 5-year AHRQ-funded grant that developed and evaluated a set of family-driven best practices for rounding in children’s hospitals. She’s an advisor to PCORI on their Improving Healthcare Systems panel and represents the Health Innovation Program to the ICTR-CAP steering committee. She really enjoys writing and mentoring students.


Week 4 - Tues, Sept 23 – Comparative Effectiveness Research and Patient-Centered Outcomes Research


Patient-Centered Outcome Research Institute (PCORI). [Find it]


Week 5 - Tues, Sept 30 - Implementation Research with Healthcare Systems and Providers (Guest Speaker - Dr. Nancy Pandhi)

Dr. Nancy Pandhi is an Assistant Professor of Family Medicine. Her research focuses on effective primary care practice redesign with an emphasis on improving care for vulnerable populations. Recent grants examine the integration of mental health and primary care. She directs the second-and third-year Community Health Rotation for the Family Medicine Residency. Her clinical practice is with Access Community Health Centers.


Revised – 09-15-2014


**Week 5 - Tues, Sept 30 – Implementation Research with Patients**


**Week 6 - Tues, Oct 7 – Implementation Research in Community Settings**

(Guest Speaker – Dr. Jane Mahoney)


Dr. Jane Mahoney is Professor of Medicine, Division of Geriatrics and Gerontology in the School of Medicine and Public Health. She is Executive Director of Wisconsin Institute for Healthy Aging (WIHA), which disseminates evidence-based programs for older adults. Since its founding 4 years ago, the Institute has disseminated proven community-based self management programs across Wisconsin and nationally, focusing on chronic disease, falls prevention, and caregiver well-being. Dr. Mahoney is also Director of the Community-Academic Aging Research Network, a partnership involving WIHA, Wisconsin's aging services network, and University of Wisconsin faculty in community-based participatory research to help develop and test new evidence-based programs for the future. Dr. Mahoney also directs ICTR's D&I Research Resources Core as part of ICTR-CAP. She has conducted randomized trials and currently conducts dissemination research on community-based interventions to decrease falls.

**Week 7 - Tues, Oct 14 – Worksheet 1 Presentations**

20-minute presentation with 10 minutes for Q&A, 3 minutes for transition; complete peer evaluation forms.

**Research Methods**

**Week 8 - Tues, Oct 21 – Methods for Experimental and Quasi-experimental Designs**


OPTIONAL - Mason et al. (2001). When is it cost-effective to change the behavior of health professionals? *JAMA*. 286(23):2988-2992. [Find It] [PubMed]

**Week 8 - Tues, Oct 21 – Methods for Community Intervention Trials**


**Week 9 - Tues, Oct 28 – Community-based Participatory Research  
(Guest Speaker – Dr. Elizabeth Jacobs)**

Elizabeth A. Jacobs, MD MAPP FACP is Associate Vice Chair for Health Services Research in the Department of Medicine and Associate Professor of Medicine and Population Health Sciences at University of Wisconsin. She attended medical school at University of California at San Francisco, trained as a general internist at Brigham and Women’s Hospital in Boston, and completed a Robert Wood Johnson Clinical Scholars Fellowship at the University of Chicago. After struggling to care for limited English-speaking patients during medical school and residency, she decided to pursue a research career investigating minority disparities in health care. She has done research documenting that provision of adequate interpreter services positively impacts the delivery of health care provided to patients with limited English proficiency and that the provision of these services are cost-beneficial. Her research interests also include access to, and cultural specificity of, medical care delivered to minority patients, health literacy, and the role that trust in health care plays in African American and Latino patients health care decisions. Her research has been supported by grants from the National Institutes of Health, The Robert Wood Johnson Foundation, The California Endowment, The Russell Sage Foundation and the Office of Minority Health. She is recognized as an expert on the provision of linguistically accessible and culturally competent care and has served on Office of Minority Health, JCAHO and AHRQ expert panels. She has published numerous peer-reviewed journal articles and authored 3 book chapters. In addition, she works with other investigators to design culturally specific research, and teaches residents and medical students about practicing culturally sensitive medicine.

Wallerstein, N., & Duran, B. (2010). Community-Based Participatory Research Contributions to Intervention Research: The Intersection of Science and Practice to Improve Health Equity. *American Journal of Public Health*, 100(S1), S40-S46. [Find It]


**Week 10 - Tues, Nov 4 – Methods for Qualitative Data Collection**


**Week 10 - Tues, Nov 4 - Methods for Qualitative Data Analysis**


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**Communicating the Results**

**Week 11 - Tues, Nov 11 - Communicating with Researchers**


OPTIONAL - International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to biomedical journals: Writing and editing for biomedical publication. Guidelines on authorship. [Find It]


**Week 12 - Tues, Nov 18 - Communicating with Practitioners and Partners**

(Guest Speaker - Dr. Jennifer Weiss)

Dr. Jennifer Weiss, MD MS, is an Assistant Professor in the Department of Medicine and Gastroenterology. Her research focuses on colorectal cancer screening for both average-risk and high-risk populations. Her research has involved a survey of primary care providers to further understand potential sources of variation in colorectal cancer screening rates. She has worked with the UW Health Colon Cancer Prevention Initiative to develop and implement system-wide colorectal cancer screening interventions. She is interested in identifying patient, provider, and system barriers to colorectal cancer screening and determining if interventions targeted at these barriers are more successful and sustained over time compared to the current approach of broad implementation of interventions. Dr. Weiss is also interested in screening in high-risk patients with hereditary colon cancer syndromes such as Lynch Syndrome and Familial Adenomatous Polyposis.


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**Research Strategies and Methods - Research Regulations**

**Week 13 - Tues, Nov 25 - Human Subjects Research**


Miller et al. (2008). Quality-improvement research and informed consent. NEJM. 358(8):765-767. [Find It] [PubMed]

OPTIONAL - Collaborative Institutional Training Initiative (CITI) training: [Find It]

**Week 13 - Tues, Nov 25 - HIPAA Regulations**

OPTIONAL - National Institutes of Health (2005). Health Services Research and the HIPAA Privacy Rule. [Find It]

**Week 14 - Tues, Dec 2 - Action Research**


[Note: additional information about CBPR can be obtained from a great University of Washington website and from an AHRQ Evidence Report (#99; Contract No. 290-02-0016) prepared in 2004.]


**Week 14 - Tues, Dec 2 - Quality Improvement Research**


OPTIONAL - Agency for Healthcare Research and Quality (AHRQ). Researching Implementation and Change While Improving Quality (R18). [Find It]

**Week 15 - Tues, Dec 9 - Final Presentations**

20-minute presentation with 10 minutes for Q&A, 3 minutes for transition; complete peer evaluation forms.

Revised – 09-15-2014