

HPM 249-S

Special Topics in Health Services: Introduction to Science of Implementing Evidence-Based Practice (Seminar on Implementation Science)

Spring 2016

Instructor:	Roshan Bastani, Ph.D. bastani@ucla.edu
Class time:	Wednesday 1pm - 4pm
Room:	A2-125 CHS
Required text:	R. Brownson, G. Colditz, & E. Proctor (Eds). <i>Dissemination and Implementation Research in Health: Translating Science to Practice</i> . Oxford University Press, 2012
Required readings:	Additional readings are assigned for each class session and indicated in the reading list.

Course Objectives

This course will provide students with a broad understanding of the critical importance of implementation science theory and methodology in translating research findings into routine practice, to achieve population-level public health benefit from scientific advances.

Learning Objectives

1. Understand the critical role of implementation science in translating research into routine practice
2. Understand the terminology and conceptual frameworks that are commonly employed in implementation research
3. Demonstrate understanding of, and critically assess, implementation science research designs and methods and their appropriate applications across various practice settings and populations
4. Understand and critically assess the various types of data and measurement tools employed to assess outcomes of implementation trials

Evaluation of Student Performance

Attendance and Class Participation	20%
Lead Discussion and Critique of Reading/s	20%
Oral Presentation of Research Proposal	20%
Written Research Proposal	40%

FINAL PROPOSALS DUE by 5 p.m. on Wednesday, June 8, 2016.

Late proposals will be penalized by reducing the earned grade to the next lower step (e.g., A- will be reduced to a B+). The penalty will accumulate for each additional late day.

Research Proposal: Each student will develop a research proposal for an implementation trial on a topic of their choice. Proposals should be no more than 15 pages, double spaced (excluding references), Ariel 11 font, 1 inch margins. Students will find guidelines for an NIH R01 application helpful in conceptualizing and crafting their proposals.

NIH R01 PA

<http://grants.nih.gov/grants/guide/pa-files/PA-13-302.html>.

NIH Dissemination and Implementation PAR

<http://grants.nih.gov/grants/guide/pa-files/PAR-13-055.html>

Proposals should address the following:

1. Background and significance of the problem being addressed (no more than 1 page)
2. Research question, study hypotheses, outcomes of interest
3. Specific aims
4. Conceptual framework
5. The intervention that will be evaluated
6. Research design, including sample size, target population
7. Measurement, data collection or data sources
8. Overview of analysis plan
9. Internal and external validity

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Spring 2016
Wednesdays, 1pm-4pm

Schedule of Topics

- | | |
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| March 30 | Introduction and Course Description
<i>Brownson, Colditz, Proctor, 2012 – Foreword, Preface, Chapter 1</i>
<i>Session 1 Readings</i> |
| April 6 | Overview of Evolving Field of Implementation Science
Terminology of D&I Science
<i>Brownson, Colditz, Proctor, 2012 – Chapter 2</i>
<i>Session 2 Readings</i> |
| April 13 | Overview of Conceptual Frameworks
<i>Brownson, Colditz, Proctor, 2012 – Chapter 7 (Organizational Processes)</i>
<i>Session 3 Readings</i> |
| April 20 | Research Designs for Implementation Science
<i>Brownson, Colditz, Proctor, 2012 – Chapter 12</i>
<i>Session 4 Readings</i> |
| April 27 | <i>Comparative Effectiveness</i>
<i>Brownson, Colditz, Proctor, 2012 – Chapter 4</i>
<i>Session 5 Readings</i> |
| May 4 | Measurement in Implementation Science
<i>Brownson, Colditz, Proctor, 2012 – Chapter 13</i>
<i>Session 6 Readings</i> |

- May 11 Evaluation Approaches
Brownson, Colditz, Proctor, 2012 – Chapter 16
Session 7 Readings
- May 18 Participatory Approaches in Implementation Science
Brownson, Colditz, Proctor, 2012 – Chapter 10
Session 8 Readings
- May 2 Student Presentations
- June 1 Student Presentations
- June 8 Final Papers Due

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Spring 2016
Wednesdays, 1pm-4pm

Readings

Session 1: Introduction and Course Description: March 30

Woolf SH (2008). The meaning of translational research and why it matters. JAMA, 299(2):211–213. PMID: 18182604

Session 2: Overview: April 6

Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implementation Science, 4(50):1-15. PMCID: PMC2736161

Fisher ES, Shortell SM, Savitz LA (2016). Implementation Science: A Potential Catalyst for Delivery System Reform. JAMA, 315(4):339-340. PMID: 26813203

Kessler R, Glasgow RE (2011). A proposal to speed translation of healthcare research into practice: dramatic change is needed. American Journal of Preventive Medicine, 40(6):637-644. PMID: 21565657

Oliver K, Innvar S, Lorenc T, Woodman J, Thomas J (2014). A systematic review of barriers to and facilitators of the use of evidence by policymakers. BMC Health Services Research, 14(2):1-12. PMCID: PMC3909454

Wilson KM, Brady TJ, Lesesne C; NCCDPHP Work Group on Translation (2011). An organizing framework for translation in public health: the Knowledge to Action Framework. Preventing Chronic Disease, 8(2):1-7. PMCID: PMC3073439

Yach D, Calitz C (2014). New opportunities for the changing landscape of prevention. JAMA, 312(8):791-792. PMID: 25032720

Session 3: Conceptual Frameworks: April 13

Bastani R, Glenn BA, Taylor VM, Chen MS, Nguyen TT, Stewart SL, Maxwell AE (2010). Integrating theory into community interventions to reduce liver cancer disparities: The Health Behavior Framework. Preventive Medicine, 50(1-2):63-67. PMCID: PMC3243444

Mitchell SA, Fisher CA, Hastings CE, Silverman LB, Wallen GR (2010). A thematic analysis of theoretical models for translational science in nursing: mapping the field. Nursing Outlook, 58(6):287-300. PMCID: PMC3011939

Nilsen P (2015). Making sense of Implementation theories, models and frameworks. Implementation Science, 10(53):1-13. PMCID: PMC4406164

Tabak RG, Khoong EC, Chambers DA, Brownson RC (2012). Bridging research and practice: models for dissemination and implementation research. American Journal of Preventive Medicine, 43(3):337-350. PMCID: PMC3592983

Session 4: Research Designs: April 20

Curran GM, Bauer M, Mittman B, Pyne JM, Stetler C (2012). Effectiveness-implementation hybrid designs: combining elements of clinical effectiveness and implementation research to enhance public health impact. Medical Care, 50(3):217-226. PMCID: PMC3731143

Glasgow RE, Chambers DA (2012). Developing robust, sustainable, implementation systems using rigorous, rapid and relevant science. Clinical Translational Science, 5(1):48-55. PMID: 22376257

Mercer SL, DeVinney BJ, Fine LJ, Green LW, Dougherty D (2007). Study designs for effectiveness and translation research: identifying trade-offs. American Journal of Preventive Medicine, 33(2):139-154. PMID: 17673103

Bastani R, Glenn BA, Maxwell AE, Jo AM, Herrmann AK, Crespi CM, Wong WK, Chang LC, Stewart SL, Nguyen TT, Chen MS Jr, Taylor VM (2015). Cluster-Randomized Trial to Increase Hepatitis B Testing among Koreans in Los Angeles. Cancer Epidemiology, Biomarkers & Prevention, 24(9):1341-1349. PMCID: PMC4560609

Heisler M, Hofer TP, Schmittdiel JA, Selby JV, Klammer ML, Bosworth HB, Bermann M, Kerr EA (2012). Improving blood pressure control through a clinical pharmacist outreach program in patients with diabetes mellitus in 2 high-performing health systems: the adherence and intensification of medications cluster randomized, controlled pragmatic trial. Circulation, 125(23):2863-2872. PMCID: PMC3999872

Jaffe MG, Lee GA, Young JD, Sidney S, Go AS (2013). Improved blood pressure control associated with a large-scale hypertension program. JAMA, 310(7):699-705. PMCID: PMC4270203

Krist AH, Glenn BA, Glasgow RE, Balasubramanian BA, Chambers DA, Fernandez ME, Heurtin-Roberts S, Kessler R, Ory MG, Phillips SM, Ritzwoller DP, Roby DH, Rodriguez HP, Sabo RT, Sheinfeld Gorin SN, Stange KC; MOHR Study Group (2013). Designing a valid randomized pragmatic primary care implementation trial: the my own health report (MOHR) project. Implementation Science, 8(73):1-13. PMCID: PMC3694031

Session 5: Comparative Effectiveness: April 27

Evidence-Based: What does this really mean? The case of screening mammography guidelines.

Lin KW, Goslin LO (2016). A public health framework for screening mammography: evidence based vs politically mandated care. JAMA, 315(10):977-978. PMID: 26779886

Nelson HD, Fu R, Cantor A, Pappas M, Daeges M, Humphrey L (2016). Effectiveness of Breast Cancer Screening: Systematic Review and Meta-analysis to Update the 2009 U.S. Preventive Services Task Force Recommendation. Annals of Internal Medicine, 164(4):244-255. PMID: 26756588 (Abstract)

Pace LE, Keating NL (2014). A systematic assessment of benefits and risks to guide breast cancer screening decisions. JAMA, 311(13):1327-1335. PMID: 24691608 (Abstract)

Siu, AL (2016). Screening for breast cancer: US Preventive Services Task Force Recommendation Statement. Annals of Internal Medicine, 164(4):279-296. PMID: 26757170 (Abstract)

Woolf SH, Campos-Outcalt D (2013). Severing the link between coverage policy and the US Preventive Services Task Force. JAMA, 309(18):1899-1900. PMID: 23598788

Bastani R, Berman BA, Belin TR, Crane LA, Marcus AC, Nasser K, Herman-Shipley N, Bernstein S, Henneman CE (2002). Increasing cervical cancer screening among underserved women in a large urban county health system: Can it be done? What does it take? Medical Care. 40(10): 891-907. PMID: 12395023

Harrison TN, Ho TS, Handler J, Kanter MH, Goldberg RA, Reynolds K (2013). A randomized controlled trial of an automated telephone intervention to improve blood pressure control. Journal of Clinical Hypertension (Greenwich), 15(9):650-654. PMID: 24034658

Krok-Schoen JL, Young GS, Pennell ML, Reiter PL, Katz ML, Post DM, Tatum CM, Paskett ED (2015). Testing Interventions to Motivate and Educate (TIME): A multi-level intervention to improve colorectal cancer screening. Preventive Medicine Reports, 2:306-313. PMID: PMC4450442

Sim JJ, Handler J, Jacobsen SJ, Kanter MH (2014). Systemic implementation strategies to improve hypertension: the Kaiser Permanente Southern California experience. Canadian Journal of Cardiology, 30(5):544-552. PMID: 24786445

Session 6: Measurement: May 4

Stirman SW, Miller CJ, Toder K, Calloway A (2013). Development of a framework and coding system for modifications and adaptations of evidence-based interventions. Implementation Science, 8(65):1-12. PMID: PMC3686699

Weiner BJ, Amick H, Lee SY (2008). Conceptualization and measurement of organizational readiness for change: a review of the literature in health services research and other fields. Medical Care Research and Review, 65(4):379-436. PMID: 18511812

Weiner BJ, Belden CM, Bergmire DM, Johnston M (2011). The meaning and measurement of implementation climate. Implementation Science, 6(78):1-12. PMCID: PMC3224582

Estabrooks PA, Boyle M, Emmons KM, Glasgow RE, Hesse BW, Kaplan RM, Krist AH, Moser RP, Taylor MV (2012). Harmonized patient-reported data elements in the electronic health record: supporting meaningful use by primary care action on health behaviors and key psychosocial factors. Journal of American Medicine Informatics Association, 19(4):575-582. PMCID: PMC3384114

Rodriguez HP, Glenn BA, Olmos TT, Krist AH, Shimada SL, Kessler R, Heurtin-Roberts S, Bastani R (2014). Real-World Implementation and Outcomes of Health Behavior and Mental Health Assessment. Journal of the American Board of Family Medicine, 27(3): 356-366. PMCID: PMC4237013

Instrument Review Project: <http://www.seattleimplementation.org/sirc-projects/sirc-instrument-project/>

GEM: Grid Enabled Measures Database: <http://www.gem-beta.org/GEM-DI>

Session 7: Evaluation Approaches: May 11

Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. Implementation Science, 4(50):1-15. PMCID: PMC2736161

Glasgow RE, Nelson CC, Stryker LA, King D (2006). Using RE-AIM metrics to evaluate diabetes self-management support interventions. American Journal of Preventive Medicine, 30(1):67-73. PMID: 16414426

Loudon K, Treweek S, Sullivan F, Donnan P, Thorpe KE, Zwarenstein M (2015). The PRECIS-2 tool: designing trials that are fit for purpose. BMJ, 350(h2147):1-11. PMID: 25956159

Tabak RG, Sinclair KA, Baumann AA, Racette SB, Sebert Kuhlmann A, Johnson-Jennings MD, Brownson RC (2015). A review of diabetes prevention program translations: use of cultural adaptation and implementation research. Translational Behavior Medicine, 5(4):401-414. PMCID: PMC4656229

Session: 8: Participatory Approaches in Implementation Science: May 18

Spears W, Tsoh JY, Potter MB, Weller N, Brown AE, Campbell-Voytal K, Getrich CM, Sussman AL, Pascoe J, Neale AV (2014). Use of Community Engagement Strategies to Increase Research Participation in Practice-based Research Networks (PBRNs). Journal of the American Board of Family Medicine, 27(6):763-771. PMID: 25381073