

UNIVERSITY OF MICHIGAN
SCHOOL OF MEDICINE
DEPARTMENT OF LEARNING HEALTH SCIENCES

LHS 721

Implementation Science in Health 2

Fall 2023

LHS 721 Syllabus Fall 2023

CREDIT HOURS	3 credits
PRE-REQUISITES	Completion of LHS 621; Completion of Summer Learning Cycle Project; Graduate standing or permission of instructor
CLASS SCHEDULE	Mondays 1 pm – 3:50 pm
LOCATION	THSL 5380
FACULTY	Amy Kilbourne, MPH, PhD Victor Vaughan, Room 226 1111 E. Catherine St. Email: amykilbo@umich.edu ; Amy.Kilbourne@va.gov Office hours: by appointment
COURSE WEBSITE	http://canvas.umich.edu

COURSE DESCRIPTION

Students will apply concepts learned in LHS 621 about how dissemination and implementation sciences fit into the LHS learning cycle and apply practical skills to implement and evaluate complex interventions to improve health care.

COURSE OBJECTIVES

By the completion of the course students will be able to:

1. Effectively develop and disseminate products from the summer learning cycle project.
2. Identify major types of implementation science study designs & design a pilot hybrid trial
3. Differentiate implementation strategies from clinical interventions and learn to identify potential implementation strategies that can enhance uptake of a clinical intervention or effective practice

4. Understand the core functions and competencies of being a principal investigator of an implementation science study
5. Demonstrate systems thinking in the design and conduct of research and implementation of its findings within the context of complex health systems
6. Describe and apply methods for eliciting stakeholder engagement when designing implementation science studies.
7. Demonstrate knowledge of how to assess multilevel determinants of health and health care disparities when designing implementation studies
8. Demonstrate knowledge regarding when to mount larger efforts to scale-up, spread, and sustain successful interventions based on strength of clinical evidence and organizational and provider readiness to change and adopt interventions
9. Identify previously studied implementation interventions, how they were developed, and how they differ in terms of mechanisms (e.g., provider-level, organization level, community engagement, etc.)
10. Demonstrate knowledge of mixed methods and how they can be used to improve implementation science interventions
11. Identify and describe relationships between components of implementation interventions and learning cycles
12. Select appropriate implementation outcomes and apply concepts of intervention and implementation strategy fidelity measurement

CONTENT TOPICS

- Mixed methods
- Dissemination Science
- Working with the community
- Pragmatic and hybrid implementation trials
- Implementation interventions/strategies
- Implementation outcomes
- Evaluating the effectiveness of implementation and/or dissemination efforts including fidelity and implementation outcomes
- Summative, process, and/or formative evaluation
- Outcomes for pilot studies
- Identifying and pilot-testing implementation strategies
- Reporting results of implementation and/or dissemination studies
- Reporting guidelines
- Behavior change techniques
- Tailoring implementation interventions to context
- Designing complex interventions
- Scale-up, Spread, and Sustainability
- De-implementation

TEACHING METHODS

This course will be taught using multiple methods, including discussions, mini-lectures, group work, case study analyses, videos, and web-based technologies. The weekly time block (Mondays 1-3:50pm) will be used for applied learning focused on review of the summer Learning Cycle Project and intermediate-level implementation science concepts. Within the course Canvas site, you will access the learning materials and syllabus; discuss issues; submit

assignments; take exams; email other students and the instructors; participate in online activities including small groups; and display your projects.

Please note that the syllabus is a progressive document that will be updated frequently throughout the semester. Please plan to check-in at least weekly to review any changes in upcoming work.

Implementation and dissemination sciences are emerging fields, and new information and discoveries are being added on an ongoing and frequent basis. Our commitment is to keep the information presented in this course as current as possible, assisting you in sorting through new knowledge as it evolves. Studying in an evolving field is a complex process, and we will support you in your learning.

GRADING AND EVALUATION

There will be five assignments for this course. They are detailed below:

Five assignments, for a total of 100 possible points. They will include:

1. **Video** with narration describing the Learning Cycle Project
2. **Presentation of Study Designs and Implementation Strategies** for Newly Designed Hybrid Trial
3. **Visual abstract and impact statement** for the results of the Learning Cycle Project
4. **Presentation of Frameworks, Stakeholder Selection, and Outcomes** for Newly Designed Hybrid Trial
5. A “publishable” **manuscript** on the results of the Learning Cycle Project

GRADING POLICIES

No late assignments will be accepted without penalty. If the assignment is not turned in by the due date and time, the student will lose two points for every day that the assignment is late. For example, if the assignment is worth 10 points and is turned in one day late, the maximum number of points for that assignment will be 8/10. Two days late will result in the maximum number of points being 6/10, and so on. Graded assignments will be returned to students via hard copy, email or through Canvas.

Final grades will be accessible through Wolverine Access; grades for each assignment will be posted through the Canvas course site. Overall course grades are posted within 72 hours of when the final course assignment component (typically the final course project report) is due. The course grade will be a letter grade (A – D, F) following the weighting described below. Grades will be assigned using this conversion scale:

A+	97-100	B+	87-89	C+	77-79	D+	67-69	F	<60
A	93-96	B	83-86	C	73-76	D	63-66		
A-	90-92	B-	80-82	C-	70-72	D-	60-62		

Please note that unless otherwise noted and agreed on, all assignments are individual, and students are expected to work independently of each other. Please review University and

School statements regarding violations of honor codes, plagiarism and other academic improprieties (<https://rackham.umich.edu/academic-policies/section8/>).

DLHS Grade Grievance Policy

Regular feedback on graded assignments and timely resolution of any grading concerns is helpful for student learning and overall positive experience. Students are encouraged to discuss any assignment grade concerns with the instructor(s) within two weeks of the grades being posted on Canvas. Similarly, any concerns and grievances related to the overall course grades should be raised by contacting the faculty of record within two weeks of the course grades being posted on Wolverine Access.

For this course, the grade dispute arbitration will happen within the Department of Learning Health Sciences (DLHS). After initial discussion with the faculty of record for the course, there is an opportunity for a second look by another DLHS faculty member with appropriate expertise for resolving grade disputes. If the student and faculty are not able to come to an agreement about the grade dispute, the Associate Chair for Educational Programs or assigned designee will adjudicate the dispute. Per Rackham's Academic Dispute Resolution Process, if the concern is not resolved, the student may seek a formal resolution conference with the Medical School's Rackham Resolution Officer (see <http://www.rackham.umich.edu/policies/academic-dispute-resolution> for full policy and the contact information for the current resolution officer).

REQUIRED TEXTS AND OTHER MATERIALS

Brownson R, Colditz GA, and Proctor E. *Dissemination and Implementation Research in Health: Translating Science to Practice*. Third Edition (Available August 2022. (NOTE the Second edition, 2018, is available electronically from the U-M Library)*)

*Additional readings will be made available through Canvas. They will be a mixture of journal articles, reports, chapters, protocols, etc. that are relevant to the topics of discussion. The expectation is that students will read the posted readings before coming to class so that we may discuss them.

COURSE POLICIES

COVID-19 statement

We each have a responsibility for protecting the collective health of our community. Applicable safety measures are described on the U-M Health Response website: <https://healthresponse.umich.edu/> Please bookmark this site for policies, guidance, and FAQs.

Attendance

Students who are feeling ill should not come to class in person. Grades will not be negatively impacted by not attending class due to illness. Other than illness, students are expected to attend all classes and will only be excused for extenuating circumstances and cultural and religious holidays. These circumstances shall be discussed with the instructor prior to missing class. If I do not hear from you prior to Monday at noon, I will assume that you plan to attend all class meetings. Students are expected to make up any work that is missed.

Expectations

This is a small class; therefore, discussions will be the key to learning during the course. There will be readings from supplemental sources that will prepare the student for discussions during class. Much of research is problem-solving; therefore, students will focus on difficult scenarios and questions that present challenging approaches. Some of the discussions will be based on a funded study implemented in the community setting and will address some of the most common decision-based scenarios students may face in the future as independent investigators. Students will also apply concepts to their own research ideas.

Digital Etiquette

Students should turn off ring-tones and other audible alerts on their phones/tablets/laptops before class begins. The use of phones/tablets/laptops for non-course-related activities, such as texting, emailing, and social media is distracting to your classmates and instructors. If there is an emergency, please excuse yourself from the classroom to attend to it.

INSTITUTIONAL POLICIES

Academic Integrity of Students

The academic community, like all communities, functions best when its members treat one another with honesty, fairness, respect, and trust. Your instructors expect students to work and study together to foster learning and understanding of the material. However, direct copying of homework, copying of homework from existing solutions, cheating on an exam, and other conduct that violates the academic integrity and ethical standards of the Rackham Graduate School community cannot be tolerated and will result in serious consequences and disciplinary action.

All written submissions must be your own, original work. Original work for narrative questions is not mere paraphrasing of someone else's completed answer: you must not share written answers with each other at all. At most, you should be working from notes you took while participating in a study session. Largely duplicate copies of the same assignment will receive an equal division of the total point score from the one piece of work.

You may incorporate selected excerpts, statements or phrases from publications by other authors, but they must be clearly marked as quotations and must be attributed. If you build on the ideas of prior authors, you must cite their work. You may obtain copy editing assistance, and you may discuss your ideas with others, but all substantive writing and ideas must be your own or be explicitly attributed to another.

If we suspect you have cheated (including plagiarism), at the very least you will receive a zero on the assignment. Rackham policy dictates that we must report every instance of academic dishonesty, no matter how small. Suspected academic misconduct will be handled by Drs. Piatt and Kilbourne: <https://rackham.umich.edu/academic-policies/section8/>

Student Academic Dispute Procedures

Rackham's Academic Dispute Resolution Policy and Procedures are available to Rackham students who have a dispute or disagreement with faculty or staff about the equity and fairness

of decisions or procedures that affect their academic standing, the conduct of their research, and progress toward the degree. Such issues may arise regarding fair and equal treatment in the conduct of a class, in the pursuit of the student's research, and in the grading or evaluation of academic work and research. Other issues may concern the equity and fairness of program, department, or Rackham policies: <https://rackham.umich.edu/academic-policies/section9/>

Diversity, Equity, and Inclusion

The Department of Learning Health Sciences (DLHS) is committed to developing the institutional mechanisms and norms necessary to promote the values of diversity, equity, and inclusion, both inside and outside our classrooms. To this end, DLHS upholds the expectations that all courses will: (1) be inclusive, (2) promote honest & respectful discussions, (3) follow multicultural ground rules and (4) abide by UM policies and procedures. Inclusive courses are those in which teachers and learners co-create and co-sustain environments that support and encourage all members to participate equitably: <https://rackham.umich.edu/rackham-life/diversity-equity-and-inclusion/>

Accessibility and Accommodations

Students should speak with their instructors before or during the first week of classes regarding any special needs. Students seeking academic accommodations should register with Services for Students with Disabilities (SSD). SSD arranges reasonable and appropriate academic accommodations for students with disabilities. Please visit: <https://ssd.umich.edu/accommodations> for more information on student accommodations.

Student Parents and Caregivers

If you are a pregnant, parenting student, or primarily responsible for providing care for a loved one or family member, and you need any accommodations, please let the instructor know at your earliest convenience. You may also reach out to mcasp.org for resources and community support.

Student Mental Health and Well-Being

The University of Michigan is committed to advancing the mental health and wellbeing of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact Counseling and Psychological Services (CAPS) at (734) 764-8312 and <https://caps.umich.edu/> during and after hours, on weekends and holidays, or through its counselors physically located in schools on both North and Central Campus. You may also consult University Health Service (UHS) at (734) 764-8320 and <https://www.uhs.umich.edu/mentalhealthsvcs> or for alcohol or drug concerns, see www.uhs.umich.edu/aodresources

For a listing of other mental health resources available on and off campus, visit: <https://caps.umich.edu/article/finding-your-community-provider-database-included>

Sexual Misconduct/Sexual Harassment Reporting

Title IX prohibits sex discrimination to include sexual misconduct: harassment, domestic and dating violence, sexual assault, and stalking. If you or someone you know has been harassed or

assaulted, you can receive confidential support and academic advocacy at the Sexual Assault Prevention and Awareness Center (SAPAC). SAPAC can be contacted on their 24-hour crisis line, 734-936-3333 and online at sapac.umich.edu

Alleged violations can be reported non-confidentially to the Office for Institutional Equity (OIE) at institutional.equity@umich.edu. Reports to law enforcement can be made to University of Michigan Police Department at 734-763-3434.

Support for Food Insecurity:

Students across the country experience food insecurity at alarming rates. The Maize and Blue Cupboard at the University of Michigan provides food, kitchen and cooking supplies, personal and household items, and support services. For information about accessing their services, please visit <https://mbc.studentlife.umich.edu/>

Confidentiality and Mandatory Reporting

As instructors, one of our responsibilities is to help create a safe learning environment on our campus. Dr. Piatt also has a mandatory reporting responsibility related to her role as the Director of the Health Infrastructures and Learning Systems degree program. Instructors are required to share information regarding sexual misconduct or information about a crime that may have occurred on U-M's campus with the University. Students may speak to someone confidentially by contacting SAPAC's Crisis Line at (734) 936-3333.

COURSE ACTIVITIES

Wee k	Date	Topic	Instructor
1	Aug 28	1. Class intro, expectations, assignments 2. Implementation science's "Greatest Hits" 3. Implementation vs. dissemination science 4. Learning cycle project videos- overview	Kilbourne
2	Sept 4	Labor Day – No Class	
3	Sept 11	1. Implementation strategies 1- overview 2. Hybrid designs 1 -overview 3. Watch and debrief Learning Cycle project videos	Kilbourne Students
5	Sept 18 Amy out	1. Implementation science in international settings 2. Implementation science and informatics 1	Moyer Waljee

4	Sept 25	<ol style="list-style-type: none"> Hybrid designs 2 Writing implementation science specific aims based on Learning Cycle Project 	Kilbourne Students
6	Oct 2	<ol style="list-style-type: none"> Implementation strategies 2- selecting, process mapping (forms, functions) Selecting implementation strategy(ies) for your newly designed hybrid trial Hypothesis writing for newly designed hybrid trial 	Kilbourne Students Students
7	Oct 9	<ol style="list-style-type: none"> Presentation of Study Designs and Implementation Strategies for your Newly Designed Hybrid Trial Implementation science evaluation I: Contextual factors, outcomes Creating a visual abstract/impact statement 	Students Kilbourne
8	Oct 16	Fall Break – No Class	
10	Oct 23	<ol style="list-style-type: none"> Implementation science evaluation 2: Adaptation, Community and consumer engagement Share and debrief learning cycle project Visual Abstract Engagement of clinical/community partners in your newly designed hybrid 	Kilbourne Students Students
9	Oct 30	<p>Novel designs in implementation science</p> <ol style="list-style-type: none"> Multi-level and adaptive implementation strategies SMART and adaptive trial designs 	Almirall Smith
11	Nov 6	<ol style="list-style-type: none"> Economic evaluation of implementation strategies Configurational and coincidence analysis in implementation science 	Eisman Dodge
12	Nov 13	<ol style="list-style-type: none"> Implementation science reporting standards Implementation Science in VA Choosing implementation, process, and effectiveness outcomes for your newly designed hybrid trial 	Kilbourne Bowersox

13	Nov 20	<ol style="list-style-type: none"> 1. Presentation of Frameworks, Stakeholder Selection, and Outcomes for your Newly Designed Hybrid Trial 2. Implementation science and informatics 2 	Students Landis-Lewis
14	Nov 27	<ol style="list-style-type: none"> 1. Implementation science, ethics, and health equity 2. Scale-spread, and sustainment 	Kilbourne
15	Dec 4	<ol style="list-style-type: none"> 1. Implementation research and policy 2. Implementation, QI, and patient safety 	Kilbourne Mwenesi Musalia

Blue text: In class activities

Red text: Graded assignments

ASSIGNMENTS, DUE DATES, AND DIRECTIONS

As a large proportion of LHS 721 is focused on the learning cycle projects, there will be six assignments focused on the project. These will include a project video, a visual abstract and impact statement, a “publishable” manuscript, a 10-minute oral presentation, and two hybrid study design presentations. A grading rubric will be provided for each assignment.

ASSIGNMENT	DUE DATE	Possible Points
Learning Cycle Project Video	Sept 10	10
Presentation of Study Designs and Implementation Strategies for your Newly Designed Hybrid Trial	Oct 8	20
Learning Cycle Visual Abstract and Impact Statement	Oct 22	25
Presentation of Frameworks, Stakeholder Selection, and Outcomes for your Newly Designed Hybrid Trial	Nov 19	20
Learning Cycle Project “Publishable” Manuscript	Dec 11	25

Project Video

The first assignment is to create a 5-minute video and script that documents and describes your Learning Cycle Project. The video should include pictures of where the work was completed, the surrounding neighborhood or health system setting, and other components of the physical context/built environment. Do not include pictures of people unless you specifically get their

written permission. Students will write a script for the video that describes their project with narration over the video or pictures. A straightforward approach to creating this assignment would be to use PowerPoint and automate the slides. However, students are encouraged to be as creative as they wish. We will review and discuss each video, on **September 11th**.

Presentation of Study Designs and Implementation Strategies for your Newly Designed Hybrid Trial

Students will apply lecture content to redesign their learning cycle projects into a Hybrid type 1, 2, or 3 trial. They will choose an appropriate implementation strategy to guide their work. Students will present their study designs and implementation strategies on **October 9th**.

Visual Abstract and Impact Statement

Students will use the results of their summer Learning Cycle Project to create a visual abstract. A visual abstract is a visual summary of the information contained within an abstract. It is meant to convey the key findings in a shorter format. It is not a substitute for reading the article and does not contain all of the details of an article. The goal of the visual abstract is to inform a potential reader of the key findings to help them decide if they want to proceed in reading the entire article. It is similar to the “trailer” of a movie. Students may choose the software that is most comfortable to them (i.e. PowerPoint, Adobe Photoshop, etc.), to create the visual abstract. Students will share their visual abstracts with the class on **October 23rd 2023**. In addition to the visual abstract, each student will write an Impact Statement to describe the impact, real or potential, of their project. This statement should be no longer than 300 words. This is due together with the visual abstract.

Please read for more information (in Canvas readings files):

Creating a Visual Abstract

Ibrahim AM. A Primer on How to Create a Visual Abstract, University of Michigan, 2017

Presentation of Frameworks, Stakeholder Selection, and Outcomes for your Newly Designed Hybrid Trial

Students will continue to work on their newly designed hybrid trials by choosing appropriate frameworks, stakeholders, and outcomes. Students will present these components of their newly designed trials on **November 20th 2023**

“Publishable Manuscript”

Over the course of the semester, students will write a “publishable” manuscript (15-20 double spaced pages without tables and figures) about their summer Learning Cycle Project. To be deemed “publishable,” manuscripts should use a standardized reporting framework. Students will use the format for articles in *Implementation Science* (abstract, background, methods, analyses, results, discussion, conclusions, and tables and figures. This is due on **December 11th**.

READINGS (All readings, with the exception of the book chapters internet links, are available through Canvas)

Week	Date	Readings
1	Aug 28	<p>Implementation Science: Introduction, impacts and embedded D&I</p> <ol style="list-style-type: none"> 1. Bauer MS, Kirchner J. Implementation science: What is it and why should I care? <i>Psychiatry Res.</i> 2020 Jan;283:112376. doi: 10.1016/j.psychres.2019.04.025. Epub 2019 Apr 23. PMID: 31036287. 2. Kilbourne AM. Quality Enhancement Research Initiative Implementation Roadmap: <i>Med Care.</i> 2019;57 Suppl 10 Suppl 3(10 Suppl 3):S286-S293. doi:10.1097/MLR.0000000000001144 3. Kilbourne AM, Glasgow RE, Chambers DA. What Can Implementation Science Do for You? Key Success Stories from the Field. <i>J Gen Intern Med.</i> 2020; 35 (Suppl 2):783-787. doi: 10.1007/s11606-020-06174-6 4. Brownson Text Chapter 2
2	Sept. 4	<p>No Class - Labor Day</p>
3	Sept. 11	<p>Implementation strategies and hybrid designs I</p> <ol style="list-style-type: none"> 1. Powell BJ, et al. A refined compilation of implementation strategies. <i>Implement Sci.</i> 2015;10:21; doi:10.1186/s13012-015-0209-1 2. Leeman J, et al. Beyond "implementation strategies": classifying the full range of strategies used in implementation science and practice. <i>Implement Sci.</i> 2017;12(1):125. doi:10.1186/s13012-017-0657-x 3. Kilbourne AM, et al. Implementing evidence-based interventions in health care: application of the replicating effective programs framework. <i>Implement Sci.</i> 2007;2:42. doi:10.1186/1748-5908-2-42 4. Curran GM, et al. Effectiveness-implementation hybrid designs: <i>Med Care.</i> 2012;50:217-226. doi:10.1097/MLR.0b013e3182408812 5. Curran GM, Landes SJ, McBain SA, Pyne JM, Smith JD, Fernandez ME, Chambers DA, Mittman BS. Reflections on 10 years of effectiveness-implementation hybrid studies. <i>Front Health Serv.</i> 2022 Dec 8;2:1053496. doi: 10.3389/frhs.2022.1053496. 6. Brownson Text Chapter 15

4	Sept 18	<p>Implementation science in international settings, informatics I</p> <ol style="list-style-type: none"> 1. Alonge O, Rodriguez DC, Brandes N, Geng E, Reveiz L, Peters DH. How is implementation research applied to advance health in low-income and middle-income countries? <i>BMJ Glob Health</i>. 2019 Mar 7;4(2):e001257. 2. Richardson JE, Abramson EL, Pfoh ER, Kaushal R; HITEC Investigators. Bridging informatics and implementation science: evaluating a framework to assess electronic health record implementations in community settings. <i>AMIA Annu Symp Proc</i>. 2012;2012:770-8. Epub 2012 Nov 3. PMID: 23304351; PMCID: PMC3540540. 3. Richesson RL, Staes CJ, Douthit BJ, Thoureen T, Hatch DJ, Kawamoto K, Del Fiol G. Measuring implementation feasibility of clinical decision support alerts for clinical practice recommendations. <i>J Am Med Inform Assoc</i>. 2020 Apr 1;27(4):514-521. doi: 10.1093/jamia/ocz225. 4. Brownson Chapter 28
5	Sept 25	<p>Hybrid designs 2</p> <ol style="list-style-type: none"> 1. Brown CH, Curran G, Palinkas LA, et al. An Overview of Research and Evaluation Designs for Dissemination and Implementation. <i>Annu Rev Public Health</i>. 2017 Mar 20;38:1-22. doi: 10.1146/annurev-publhealth-031816-044215. PMID: 28384085; PMCID: PMC5384265 2. Miller CJ, et al. Experimental and quasi-experimental designs in implementation research. <i>Psychiatry Res</i>. 2020;283:112452. doi:10.1016/j.psychres.2019.06.027 3. Wolfenden, L., Foy, R., Pesseau, J., Grimshaw, J. M., Ivers, N. M., Powell, B. J., Taljaard, M., Wiggers, J., Sutherland, R., Nathan, N., Williams, C. M., Kingsland, M., Milat, A., Hodder, R. K., & Yoong, S. L. (2021). Designing and undertaking randomised implementation trials: guide for researchers. <i>BMJ</i>, 372, m3721. https://doi.org/10.1136/bmj.m3721 4. Brownson Text Chapter 13
6	Oct. 2	<p>Implementation strategies- selection</p> <ol style="list-style-type: none"> 1. Waltz TJ et al. Choosing implementation strategies. <i>Implement Sci</i>. 2019 Apr 29;14(1):42. doi: 10.1186/s13012-019-0892-4. 2. Proctor EK, et al. Implementation strategies: Recommendations for specifying and reporting. <i>Implement Sci</i>. 2013;8:139. doi:10.1186/1748-5908-8-139 3. Fernandez ME, Ten Hoor GA, van Lieshout S, Rodriguez SA, Beidas RS, Parcel G, Ruitter RAC, Markham CM, Kok G. Implementation Mapping: Using Intervention Mapping to Develop Implementation Strategies. <i>Front Public Health</i>. 2019 Jun 18;7:158. doi: 10.3389/fpubh.2019.00158.

		<p>4. Smith JD, Li DH, Rafferty MR. The Implementation Research Logic Model: a method for planning, executing, reporting, and synthesizing implementation projects. <i>Implement Sci.</i> 2020 Sep 25;15(1):84. doi: 10.1186/s13012-020-01041-8.</p>
7	Oct. 9	<p>Implementation science evaluation I: outcomes and measures</p> <ol style="list-style-type: none"> 1. RE-AIM: https://re-aim.org/learn/what-is-re-aim/ 2. Davis M, Johnson C, Pettit AR, Barkin S, Hoffman BD, Jager-Hyman S, King CA, Lieberman A, Massey L, Rivara FP, Sigel E, Walton M, Wolk CB, Beidas RS. Adapting Safety Check as a Universal Suicide Prevention Strategy in Pediatric Primary Care. <i>Acad Pediatr.</i> 2021 Sep-Oct;21(7):1161-1170. doi: 10.1016/j.acap.2021.04.012. Epub 2021 Apr 24. PMID: 33901726; PMCID: PMC8429196. 3. Miller CJ, Barnett ML, Baumann AA, Gutner CA, Wiltsey-Stirman S. The FRAME-IS: a framework for documenting modifications to implementation strategies in healthcare. <i>Implement Sci.</i> 2021 Apr 7;16(1):36. doi: 10.1186/s13012-021-01105-3 4. Smith JD, Merle JL, Webster KA, Cahue S, Penedo FJ, Garcia SF. Tracking dynamic changes in implementation strategies over time within a hybrid type 2 trial of an electronic patient-reported oncology symptom and needs monitoring program. <i>Front Health Serv.</i> 2022 Nov 1;2:983217. doi: 10.3389/frhs.2022.983217. PMID: 36925901; PMCID: PMC10012686. <p>Brownson Text Chapter 14</p> <p>Creating a visual abstract and impact statement</p> <ol style="list-style-type: none"> 5. Ibrahim AM. A Primer on How to Create a Visual Abstract, University of Michigan, 2017 6. UK impact statement guidance pdf: https://www.communications.cals.vt.edu/resources/impact-statements.html
8	Oct. 16	Fall Break – No Class
9	October 23	<p>Implementation science evaluation 2: community and consumer engagement</p> <ol style="list-style-type: none"> 1. Wells KB, Jones L, Chung B, et al. Community-partnered cluster-randomized comparative effectiveness trial of community engagement and planning or resources for services to address depression disparities. <i>J Gen Intern Med.</i> 2013 Oct;28(10):1268-78. doi: 10.1007/s11606-013-2484-3. Epub 2013 May 7.

		<ol style="list-style-type: none"> 2. Kho A, Daumit GL, Truesdale KP, Brown A, Kilbourne AM, Ladapo J, Wali S, Cicutto L, Matthews AK, Smith JD, Davis PD, Schoenthaler A, Ogedegbe G, Islam N, Mills KT, He J, Watson KS, Winn RA, Stevens J, Huebschmann AG, Szeffler SJ. The National Heart Lung and Blood Institute Disparities Elimination through Coordinated Interventions to Prevent and Control Heart and Lung Disease Alliance. <i>Health Serv Res.</i> 2022 Jun;57 Suppl 1(Suppl 1):20-31. Doi: 10.1111/1475-6773.13983. 3. Woodward EN, Willging C, Landes SJ, Hausmann LRM, Drummond KL, Ounpraseuth S, Ball IA, Kirchner JE. Determining feasibility of incorporating consumer engagement into implementation activities: study protocol of a hybrid effectiveness-implementation type II pilot. <i>BMJ Open.</i> 2022 Jan 18;12(1):e050107. doi: 10.1136/bmjopen-2021-050107. 4. Brownson Chapters 11, 21
10	Oct. 30	<p>Implementation science novel designs</p> <ol style="list-style-type: none"> 1. Smith SN, Almirall D, Prenovost K, Liebrecht C, Kyle J, Eisenberg D, Bauer MS, Kilbourne AM. Change in Patient Outcomes After Augmenting a Low-level Implementation Strategy in Community Practices That Are Slow to Adopt a Collaborative Chronic Care Model: A Cluster Randomized Implementation Trial. <i>Med Care.</i> 2019 Jul;57(7):503-511. doi: 10.1097/MLR.0000000000001138 2. Smith SN, Almirall D, Choi SY, Koschmann E, Rusch A, Bilek E, Lane A, Abelson JL, Eisenberg D, Himle JA, Fitzgerald KD, Liebrecht C, Kilbourne AM. Primary aim results of a clustered SMART for developing a school-level, adaptive implementation strategy to support CBT delivery at high schools in Michigan. <i>Implement Sci.</i> 2022 Jul 8;17(1):42. doi: 10.1186/s13012-022-01211-w. Erratum in: <i>Implement Sci.</i> 2022 Aug 11;17(1):54. PMID: 35804370; PMCID: PMC9264291.
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