Department of Health Promotion and Community Health

HPCH 335
Implementation Research for Public Health
[2 credits]

Course Syllabus
Fall Semester, Academic Year 2023-2024

Class time and Venue:
Date: Thursdays
Times: 9:00 – 10:40 AM
Venue: Van Dyck building, room 103

Course Instructor and Contact Details:
Name: Tamar Kabakian
Email: tk00@aub.edu.lb
Office: Van Dyck building, room 304
Office Hours: By appointment

Course Description:
This course introduces implementation research, its frameworks, methods, and applications. Through readings and case studies, students will develop an understanding of implementation strategies at the individual, organizational and policy levels, and will discuss issues related to sustainability and scaling-up. They will develop a project where they articulate an implementation research problem of importance in their context, identify implementation strategies, select the appropriate study design, and consider the ethical aspects of the work.

Course learning Objectives
By the end of the course, students will be able to:

LO1.8. Identify theories and frameworks used in implementation research
LO2.3. Apply monitoring and evaluation methods to assess the feasibility and effectiveness of an implementation research program.
LO2.6. Identify stakeholders' barriers and facilitators in implementation of effective practices.
LO2.7. Develop strategies to implement, sustain and scale-up effective practices in a specific setting.
LO2.8. Identify implementation gaps in public health interventions in different contexts
LO3.1. Discuss various modalities of mixed-methods research in implementation research
LO3.2. Analyze secondary quantitative and qualitative data to assess the feasibility and effectiveness of the intervention
LO3.8. Formulate effective implementation research questions
LO3.11. Discuss implications of research findings for policy and practice
LO5.2. Apply a framework of ethics, equity, social/environmental justice and human rights to a health promotion research, practice, and policy.

Council on Education for Public Health (CEPH) Core/Concentration Competencies and Foundational Learning Outcomes mapped to HPCH 335
- **HPCHCC1.** Demonstrate a critical understanding of multidisciplinary theories/frameworks utilized in health promotion research and practice
- **HPCHCC2.** Employ theoretical knowledge and methodological skills in health promotion program planning, implementation, monitoring, and evaluation
- **HPCHCC3.** Conduct rigorous quantitative and qualitative research for health promotion

▪ **HPCHCC5.** Promote social justice and equity in health promotion research, practice, and policy

Essential Skills
- ▪ **Essential Skill 1: Academic writing**
- ▪ **Essential Skill 2: Critical Thinking/analysis**
- ▪ **Essential Skill 3: Problem Solving**

Course Learning Objectives mapped to CEPH concentration competencies

Table 1. **Mapping of course LO to CEPH competencies**

	LO1.8	LO2.3	LO2.6	LO2.7	LO2.8	LO3.1	LO3.2	LO3.8	LO3.11	LO5.2
HPCHCC1. Demonstrate a critical understanding of multidisciplinary theories/frameworks utilized in health promotion research and practice	X									
HPCHCC2. Employ theoretical knowledge and methodological skills in health promotion program planning, implementation, monitoring, and evaluation		X	X	X	X					
HPCHCC3. Conduct rigorous quantitative and qualitative research for health promotion						X	X	X	X	
HPCHCC5. Promote social justice and equity in health promotion research, practice, and policy										X

Assigned Text Book and Readings (if applicable)
Readings are available open access via AUB Libraries and will be posted on Moodle.

Additional Suggested Instructions:
The course will also use an assortment of educational resources including: publications, reports, white papers, videos and case studies. All course readings, except for book chapters, will be posted on Moodle according to the weekly topic and reading schedule. It is the responsibility of students to access the Moodle and download/ print the course readings as per the weekly schedule.

Course requirements and Student evaluation:
Pre-requisites:
- PBHL 310
- PBHL 303

Student Evaluation:
Table-2 Summary of students' assessments mapped to course learning objectives

	Learning Objectives									
	LO1.8	LO2.3	LO2.6	LO2.7	LO2.8	LO3.1	LO3.2	LO3.8	LO3.11	LO5.2
Participation	X	X	X	X	X	X	X	X	X	X
In-class graded assignment: data analysis/interpretation						X	X		X	
First section of the paper	X		X		X			X		
Final section of the paper		X		X		X				X

Table -3 Description of Assessment methods, Due Dates and Corresponding Learning Objectives

Assessment method	Date	Grade percentage
Participation	*NA*	*10%*
Individual assessment: Students are expected to actively participate in class discussion having read the assigned materials.		
Assignment 1: In-class graded assignment- use of quant and qual data in IR	*October 19*	*25%*
Individual assignment: Students will be provided with quantitative data and asked to conduct descriptive and simple analytical tests and/or to interpret quantitative data for the identification of the implementation problem or to describe specific implementation outcomes. They will be asked to write a short interpretation of the data based on the research question provided.		
Assignment 2: First section of the paper	*November 8*	*30%*
Individual assignment: Students will identify an implementation gap related to a health issue based on the literature and develop an implementation research question. They will then select a framework to guide the research and discuss its components. Based on the knowledge available to them about the context through the literature they will describe the barriers and facilitators for implementation. Detailed guidelines and rubrics will be shared on Moodle.		
Assignment 3: Final section of the paper	*December 7*	*35%*
Individual assignment: Students will continue working on the paper building on the first section by selecting research methods applicable for their specific research question. In this section of the paper students need to operationalize their implementation outcomes, identify stakeholders and discuss their roles, select implementation strategies and discuss ethical considerations. Detailed guidelines and rubrics will be shared on Moodle.		

Policies and other General Notes:

Attendance:
Students are expected to attend all sessions. Absence, whether excused or not, from any class does not excuse student from their responsibility for the work done or from any announcement made during their absence. Students who miss more than one-fifth of the sessions in the first ten weeks of the semester will lose all credit for the course and will receive a grade of W (withdraw).

Academic integrity:
Education is demanding and you need to properly manage your time. Do not hesitate to use the resources around you but do not cut corners. Cheating and plagiarism will not be tolerated. Review the Student Code of Conduct and familiarize yourself with definitions and penalties. Cheating might earn you a failing mark on the assignment, at the very least. You might fail the course in which you cheated, be warned, suspended or expelled from University and a permanent mention of the disciplinary action might be made in your student records. If you're in doubt about what constitutes plagiarism, ask your instructor because it is *your* responsibility to know. Remember that the American University of Beirut has a strict anti-cheating and anti-plagiarism policy. Do not become a lesson to others. For further information, kindly visit AUB's Policies and Procedures or http://pnp.aub.edu.lb/general/conductcode.

In this course, the use of words, images, ideas or content that is created/generated by other people or digital tools such as AI as content created by you is considered academic misconduct, which is taken very seriously at FHS and AUB. The use of content generated by AI is considered automated plagiarism. Please note that materials generated by digital tools such as AI may be inaccurate or problematic with unknown primary sources as these tools may provide inaccurate information and cite non-existing sources. Beware that the inappropriate use of these digital tools may impact your ability to think independently and creatively. Please look for alternative tools (word, grammarly, endnote, etc...) for spell checking, referencing and language checking.

Students with Disabilities:
 If you have a disability, for which you may request accommodation in AUB classes, consult the website for more information and make arrangements with the Coordinator (http://www.aub.edu.lb/sao/Pages/Students_20with_20Special_20Needs.aspx). Also, please see the instructor of this course privately in regard to possible support services that can be provided to you.

Non-Discrimination- Title IX- AUB
AUB is committed to facilitating a campus free of all forms of discrimination including sex/gender-based harassment prohibited by Title IX. The University's non-discrimination policy applies to, and protects, all students, faculty, and staff. If you think you have experienced discrimination or harassment, including sexual misconduct, we encourage you to tell someone promptly. If you speak to a faculty or staff member about an issue such as harassment, sexual violence, or discrimination, the information will be kept as private as possible, however, faculty and designated staff are required to bring it to the attention of the University's Equity/Title IX Coordinator. Faculty can refer you to fully confidential resources, and you can find information and contacts at www.aub.edu.lb/titleix. **To report an incident**, contact the University's Equity/Title IX Coordinator Ms. Mitra Tauk at 01-350000 ext. 2514, or titleix@aub.edu.lb. An anonymous report may be submitted online via EthicsPoint at www.aub.ethicspoint.com.

Accessible Education Office (AEO):
The Accessible Education Office (AEO) coordinates academic accommodations and services for all eligible AUB students with disabilities (such as ADHD, learning difficulties, mental health conditions, chronic or temporary medical conditions, and others). If you have a disability for which you wish to request accommodations at the department, faculty or university level, please contact AEO as soon as possible. Once you register with our office, we will assist you in receiving appropriate accommodations and will liaise with your instructors and any related entity to best support your needs. AEO is located in West Hall room 314, and can be reached by phone at 1-350000

ext. 3246 or by email: accessibility@aub.edu.lb. Information about our services can be found at:
https://www.aub.edu.lb/SAO/Pages/Accessible-Education.aspx

Writing:
Written communication is essential for communication, health education and behavioral science. You are expected to proofread and spell-check any written documents before submission. Points will be deducted from the grades for low quality writings. You are encouraged to contact AUB's Writing Center, located in Ada Dodge Hall, 2nd floor or West Hall, 3rd floor. Appointments can be booked online: https://aub.mywconline.com/, over the phone (Ext. 4077) or by walking in.

Public Health Education Office
Please refer to the Public Health Education Office Student Portal

Be ready for the session, make sure you arrive on time and ready for the session at **least 5 minutes** in advance.

Engage, by participating in the discussions, asking questions, and contributing actively to classroom activities (you will be graded on these).

Avoid distractions while attending a session, by silencing your phones and living them out of sight, not checking your emails, closing open browsers if you're using your laptop. It is a matter of respect for the instructor and for other colleagues who want to follow the session.

Detailed course outline:

Week/Date	Topic	LO	Assessment	Reading
1/Aug 31	Introduction to the course and to implementation research			
2/Sept 7	Identifying the implementation gap and developing the implementation research question	LO2.8 LO3.8	Participation Assignment 1 & 2	Peters et al (2013) Colditz (2017)
3/Sept 14	Application: "what is implementation research and what is not"	LO2.8 LO3.8	Participation Assignment 2	Theobald et al (2018)
4/Sept 21	Conceptual frameworks in implementation research (self-paced session on moodle)	LO1.8	Participation Assignment 2	Moullin et al (2020) Damschroder (2020) Nilson (2022)
5/Sept 28	Application on conceptual frameworks in IR	LO1.8	Participation Assignment 2	Damschroder (2022) Garbut (2018)
6/Oct 5	Research methods in implementation science	LO3.1 LO2.3 LO3.11	Participation Assignment 1 & 3	Proctor et al (2011) Brown et al (2017) Palinkas et al (2017)
7/Oct 12	Application on research methods in IR	LO3.1 LO2.3 LO3.11	Participation Assignment 1	
8/Oct 19	*Assignment 1: In-class graded assignment- use of quant and qual data in IR*	LO3.1 LO3.2 LO3.11	Assignment 1	
9/Oct 26	Understanding systems, identifying stakeholders and health system actors	LO2.6	Participation Assignment 2	Riley et al (2017) Burke et al (2015)
10/Nov 2	Implementation strategies and interventions	LO2.7	Participation Assignment 3	Powell et al (2012); Proctor et al (2013); Kirchner et al (2017)
Nov 8	*Assignment 2: First section of the paper is DUE*	LO1.8 LO2.6 LO2.8 LO3.8	Assignment 2	
11/Nov 9	Application on implementation strategies	LO2.7	Participation Assignment 3	
12/Nov 16	Sustainability and scaling up	LO2.7	Participation Assignment 3	Yamey (2012); Shelton et al (2020) Chambers et al (2013)
13/Nov 23	Ethical considerations in implementation research	LO5.2	Participation Assignment 3	Gopichandran et al (2016) Dubois et al (2017)
14/Nov 30	Student presentations *Class feedback on final proposal*	LO2.3 LO2.7 LO3.1 LO5.2	Assignment 3	

Course readings:

Session 2 & 3: Implementation Research: Introduction
- Peters D, Adam T, Alonge O, Agyepong I and Tran N. Implementation research: what it is and how to do it. *BMJ.* 2013, 347:f6753
- Colditz G and Emmons K. The Promise and Challenges of Dissemination and Implementation Research in Ross C. Brownson, Graham A. Colditz, and Enola K. Proctor (eds) *Dissemination and Implementation Research in Health: Translating Science to Practice*, 2nd edn (New York, 2017; online edn, Oxford Academic, 23 Nov. 2017), https://doi.org/10.1093/oso/9780190683214.003.0001
- Theobald S et al. Implementation research: new imperatives and opportunities in global health. *The Lancet*, 2018, 392(10160): 2214-2228.

Session 4 & 5: Overview of Conceptual Frameworks in implementation research
- Moullin, J.C., Dickson, K.S., Stadnick, N.A. *et al.* Ten recommendations for using implementation frameworks in research and practice. *Implement Sci Commun* **1**, 42 (2020). https://doi.org/10.1186/s43058-020-00023-7
- Damschroder LJ. Clarity out of chaos: Use of theory in implementation research. *Psychiatry Research*. 2020, 283: 112461.
- Nilson. Theories, models, and frameworks in implementation science A Taxonomy in Rapport, F., Clay-Williams, R., & Braithwaite, J. (Eds.). (2022). Implementation Science: The Key Concepts (1st ed.). Routledge. https://doi.org/10.4324/9781003109945
- Damschroder, L.J., Reardon, C.M., Opra Widerquist, M.A. *et al.* Conceptualizing outcomes for use with the Consolidated Framework for Implementation Research (CFIR): the CFIR Outcomes Addendum. *Implementation Sci* **17**, 7 (2022). https://doi.org/10.1186/s13012-021-01181-5
- Garbutt et al. Theory-based development of an implementation intervention to increase HPV vaccination in pediatric primary care practices. Implementation Science (2018) 13:45 https://doi.org/10.1186/s13012-018-0729-6

Additional recommended reading:
- Tabak R et al. The Conceptual Basis for Dissemination and Implementation Research: Lessons from Existing Models and Frameworks. in Ross C. Brownson, Graham A. Colditz, and Enola K. Proctor (eds) *Dissemination and Implementation Research in Health: Translating Science to Practice*, 2nd edn (New York, 2017; online edn, Oxford Academic, 23 Nov. 2017) https://doi.org/10.1093/oso/9780190683214.003.0005

Session 6: Research Methods in implementation science
- Brown CH, Curran G, Palinkas LA, et al. (2017) An Overview of Research and Evaluation Designs for Dissemination and Implementation. *Annu Rev Public Health*. 38:1-22. doi:10.1146/annurev-publhealth-031816-044215
- Proctor, E. K., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G. A., Bunger, A., Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. Administration and Policy in Mental Health and Mental Health Services Research, 38(2), 65–76. 4.
- Palinkas, LA and Cooper BR, Mixed Methods Evaluation in Dissemination and Implementation Science, in Ross C. Brownson, Graham A. Colditz, and Enola K. Proctor (eds), *Dissemination and Implementation Research in Health: Translating*
- *Science to Practice*, 2nd edn (New York, 2017; online edn, Oxford Academic, 23 Nov. 2017), https://doi.org/10.1093/oso/9780190683214.003.0020

Session 9: Understanding Systems and Identifying Stakeholders
- Riley, BL et al. Systems Thinking and Dissemination and Implementation Research, in Ross C. Brownson, Graham A. Colditz, and Enola K. Proctor (eds)
- *Dissemination and Implementation Research in Health: Translating Science to Practice*, 2nd edn (New York, 2017; online edn, Oxford Academic, 23 Nov. 2017), https://doi.org/10.1093/oso/9780190683214.003.0009
- Burke, J.G., Lich, K.H., Neal, J.W. *et al.* Enhancing Dissemination and Implementation Research Using Systems Science Methods. *Int.J. Behav. Med.* 22, 283–291 (2015). https://doi.org/10.1007/s12529-014-9417-3

Session 10: Implementation strategies and interventions
- Powell, B. J., McMillen, J. C., Proctor, E. K., et al. (2012). A compilation of strategies for implementing clinical innovations in health and mental health. Medical Care Research and Review, 69(2), 123–157.
- Proctor, E. K., Powell, B. J., & McMillen, J. C. (2013). Implementation strategies: Recommendations for specifying and reporting. Implementation Science, 8(139), 1–11.
- Kirchner, JE et al. Implementation Strategies, in Ross C. Brownson, Graham A. Colditz, and Enola K. Proctor (eds), *Dissemination and Implementation Research in Health: Translating Science to Practice*, 2nd edn (New York, 2017; online edn, Oxford Academic, 23 Nov. 2017) https://doi.org/10.1093/oso/9780190683214.003.0015

Session 12: Sustainability and scaling up
- Yamey, G. (2012). What are the barriers to scaling up health interventions in low and middle income countries? A qualitative study of academic leaders in implementation science. Implementation Science, 8(11), 1–11.
- Shelton RC, Chambers DA and Glasgow RE (2020) An Extension of RE-AIM to Enhance Sustainability: Addressing Dynamic Context and Promoting Health Equity Over Time. Front. Public Health 8:134. doi: 10.3389/fpubh.2020.00134
- Chambers, D.A., Glasgow, R.E. & Stange, K.C. (2013). The dynamic sustainability framework: addressing the paradox of sustainment amid ongoing change. *Implementation Sci* 8, 117. https://doi.org/10.1186/1748-5908-8-117

Additional recommended readings:
- WHO (2009). A practical guide for scaling up health service innovations.
- WHO (2010). Nine steps for developing a scaling-up strategy.

Session 13: Ethical considerations in implementation research
- Gopichandran et al. Developing the ethics of implementation research in health. Implementation Science (2016) 11:161
- DuBois, JM and Prusaczyk B, Ethical Issues in Dissemination and Implementation Research, in Ross C. Brownson, Graham A. Colditz, and Enola K. Proctor (eds),*Dissemination and Implementation Research in Health: Translating Science to Practice*, 2nd edn (New York, 2017; online edn, Oxford Academic, 23 Nov. 2017), https://doi.org/10.1093/oso/9780190683214.003.0004

Appendix I. Reinforced – Introduced CEPH competencies

Introduced competencies: the competency is introduced at a basic level. Instruction and learning activities focus on basic knowledge, skills and entry-level complexity. The competency is **not assessed**

Reinforced competency: The competency is reinforced with feedback; students demonstrate the outcome at an increasing level of proficiency (above the introductory stage). Instruction and learning activities concentrate on enhancing and strengthening existing knowledge and skills, as well as expanding complexity. The competency is **not assessed**

Core Competencies	Introduced	Reinforced
CC2. Select quantitative and qualitative data collection methods appropriate for a given public health context		X
CC4. Interpret results of data analysis for public health research, policy or practice		X
CC6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels		X
CC8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs		X
CC9. Design a population-based policy, program, project or intervention		X
CC10. Explain basic principles and tools of budget and resource management		
CC11. Select methods to evaluate public health program		X

HPCH competencies	Introduced	Reinforced
HPCHCC1. Demonstrate a critical understanding of multidisciplinary theories/frameworks utilized in health promotion research and practice		**X**
HPCHCC2. Employ theoretical knowledge and methodological skills in health promotion program planning, implementation, monitoring, and evaluation		**X**
HPCHCC5. Promote social justice and equity in health promotion research, practice, and policy		**X**

HMPD competencies	Introduced	Reinforced
HMPCC2: Apply systems thinking approaches to improve healthcare organizations' performance and responsiveness		**X**

EPHD competencies	Introduced	Reinforced
EBCC6: Interpret and communicate statistical findings in oral and written format		**X**