HBEH/NUTR 811
Development and Evaluation of Health Promotion and Disease Prevention Interventions
Fall 2014

Class Schedule: Wednesdays, 2:00pm – 4:50 pm
Rosenau 332

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Office Hours: By Appointment

Course Website: http://sakai.unc.edu

Course Description
This semester-long course will examine the development and evaluation of interventions for health promotion and disease prevention, with focus on how intervention development and evaluation are not separate units, but rather highly interrelated. With regards to intervention development, topics will cover the interplay between theory-driven and empirically supported strategies for interventions, how theories and empirical literature can inform intervention development, and how intervention research can inform theory. The evaluation component, defined as systematic investigation of the intervention effects on targeted outcomes and assessment of intervention processes, will focus on quantitative and qualitative methods of evaluation. Topics include evaluation paradigms, standards of evidence, threats to internal and external validity and experimental and quasi-experimental designs for assessing program effects. All topics will be discussed in seminar format. Students are assumed to have basic understanding of health behavior theory, program planning, research methods, and basic statistics. The intent is for students to synthesize and build upon this background as they develop skills in developing and evaluating health promotion programs. In addition to participating in general skill-building activities on a variety of topics, students will each select a public health problem area to focus development of an intervention and evaluation plan.
Course Objectives:
1. Synthesize the epidemiological evidence linking determinants to a health behavior of public health significance within a target population.
2. Identify theories and relevant constructs that link determinants to a behavioral outcome.
3. Construct a conceptual model that depicts the relationships between determinants and a behavioral outcome.
4. Understand how theory and empirically supported strategies are used to inform intervention development.
5. Identify supported intervention strategies for changing a behavioral outcome and construct a conceptual model linking program components, determinants of a health behavior, and the behavioral outcome.
6. Create an outcome evaluation plan and a process evaluation plan for an intervention to change a behavioral outcome.


Course Requirements: The quality of the course depends on students’ preparation for and participation in seminar discussion and assignments. Detailed assignments will be posted on Sakai and handed out in class. Brief descriptions of assignments include the following:

- **Assignment #1, Due 8/27**: Identifying a Health Behavior and Target Population. Identification of a health behavior or set of health behaviors that impact public health in an at-risk target population; define the behavior(s), address the public health impact, and explain risk and prevalence in chosen population using epidemiological evidence. The paper should be a maximum of 3 double-spaced pages plus references.

- **Assignment #2, Due 9/17**: Identifying Determinants of the Health Behavior(s) in a Target Population. Develop (1) an evidence table outlining the modifiable determinants of the health behavior(s) in your population (or related populations as needed) and (2) a conceptual model that graphically depicts the relationships between these determinants and the health behavior(s).

- **Assignment #3, Due 10/1**: Identifying Intervention Objectives for Changing the Health Behavior(s) in a Target Population. Review evidence from outcome and process evaluation studies about interventions designed to change the health behavior in your target population. Develop a table that links modifiable determinants of your health behavior to intervention objectives.

- **Assignment #4, Due 10/29**: Intervention Plan. (1) Create a table of intervention objectives linked to intervention strategies and (2) Develop an intervention plan. The intervention plan should be prepared in PowerPoint, using slide notes to add important supplementary information. The table will be a separate document.

- **Assignment #5, Due 11/19**: Evaluation Plan. Create an evaluation plan including a process evaluation plan for 1 component of the intervention and an outcome evaluation plan for your primary (and secondary as needed) hypothesis addressing your primary health behavior(s) outcome. The evaluation plan should be prepared in PowerPoint, using slide notes to add important supplementary information.

**Presentations**: We will have four presentation days (for Assignments 2-5) and each student will present during three of these days. Students will choose 2 of the first 3 presentations (Sep 17th, Oct 1st, and Oct 29th) and all students will participate in the last presentation (Nov 19th). We will distribute a sign-up sheet in class. Presentations for assignments 1, 2 and 3 will be worth 3 points and the presentation for assignment 4 will be worth 4 points. Thus each student will have possible 10 points for
presentations. Presentations will be 20 minutes: 10 minutes to present and 10 minutes for questions and discussion.

- Please submit assignments via the Sakai Dropbox by noon before class on the day that it is due. Students are expected to be in class on time.

- Late assignments are not acceptable except under emergency circumstances with approval. Unexcused late assignments will be penalized by a half letter grade for every 12 hours they are late. Close attention and adherence to assignment instructions, including formatting, is expected.

**Grading:**

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<th>Final Grades</th>
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<tr>
<td>Attendance/Participation</td>
<td>5 points</td>
<td>H ≥ 90</td>
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<tr>
<td>Assignment 1</td>
<td>10 points</td>
<td>P 76-89</td>
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<td>Assignment 2</td>
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<td>Assignment 3</td>
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<td>Assignment 4</td>
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<td>Assignment 5</td>
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<td>Presentations</td>
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<td><strong>TOTAL</strong></td>
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**Honor Code**

Students must observe the Honor Code in all course assignments. You are expected to produce your own work, except where group work is specifically allowed. In all written assignments, you must not plagiarize the work of others. The instrument defining the Honor Code defines plagiarism as "deliberate or reckless representation of another's words, thoughts, or ideas as one's own without attribution in connection with submission of academic work, whether graded or otherwise." If you have questions about your responsibility under the honor code, please bring them to one of the instructors or consult with the office of the Dean of Students or the Instrument of Student Judicial Governance. This document, adopted by the Chancellor, the Faculty Council, and the Student Congress, contains all policies and procedures pertaining to the student honor system.

Please include the following pledge on all written assignments: “On my honor, I have neither given nor received unauthorized aid on this assignment.”
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<thead>
<tr>
<th>Date</th>
<th>Topic and Activities</th>
<th>Assignments</th>
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<tbody>
<tr>
<td>8/20</td>
<td><strong>Overview of Class</strong></td>
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<td>1. Leslie: Why Interventions? Levels of Prevention</td>
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<td>2. Discuss syllabus and class overview</td>
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<td>3. Presentation by Marta</td>
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<td>4. Students Discuss Behavioral Outcome and Target Population</td>
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<td>5. Deb: Wrap-up and Strategies for Success</td>
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<td>8/27</td>
<td><strong>Rational Planning Approach, Formative Research, and Conceptual Models</strong></td>
<td>Assignment Due: Identify Health Behavior and Target Population</td>
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<td></td>
<td>1. Leslie: Rational Planning, Formative Research/Understand the Problem</td>
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<td>2. Susan Ennett: Introduce Conceptual Models</td>
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<tr>
<td></td>
<td><strong>Readings</strong></td>
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<tr>
<td></td>
<td>1. Perry, Chapter 1: Introduction, pp. 1-16.</td>
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<td>9/3</td>
<td><strong>Intervention Planning</strong></td>
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<td>1. Conceptual model group activity</td>
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<td>2. Deb: Use of theory-based constructs and intervention evidence in intervention planning</td>
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<td><strong>Readings</strong></td>
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<td>2. Rothman, A. J. (2004). &quot;Is there nothing more practical than a good theory?&quot;: Why innovations and advances in health behavior change will arise if interventions are used to test and refine theory. <em>International Journal of Behavioral Nutrition and Physical Activity, 1</em>-11.</td>
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<td><strong>Optional Background Reading</strong></td>
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<td>1. Chapter 2: Behavior-Oriented Theories Used in Health Promotion</td>
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<td>2. Chapter 3: Environment-Oriented Theories</td>
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| 9/10 | Nuts and bolts of intervention development | 1. Leslie: Intervention objectives, Formative Research  
2. Deb: Making sense of intervention literature – evidence tables |
|      | Readings | 1. Perry, Chapter 3: Determining the Program Components, pp.43-72.  
| 9/17 | Presentations: Conceptual Models | 1. Student presentations |
| 9/24 | Intervention Types | 1. Vivian Go: International  
2. Chris Rini: Technology-delivered  
3. In-class individual work on Intervention Objectives |
2. Rini article on intervention development (TBD) |
| 10/1 | Presentations: Intervention Objectives | 1. Student presentations |
| 10/8 | Intervention Objectives and Strategies | 1. Leslie: Linking Intervention Objectives to Strategies |
## Introduction to Behavior Change Techniques

**Readings**

1. Perry, Chapter 4: Creating the Health Behavior Program, pp. 73-98

### 10/15 Intervention Design and Implementation

1. TBD: Intervention Implementation, RE-AIM
2. Deb: Measurement of Constructs and Objectives

**Readings**

1. RE-AIM tutorial (Free, will need to create an account): [http://www.centertrt.org/?p=training_webtrainings](http://www.centertrt.org/?p=training_webtrainings)

### 10/22 Outcome Evaluation Design

1. Marta: Outcome evaluation design
2. Deb: Selecting outcome measures

**Readings**

### Review:

### 10/29 Presentations: Intervention Plans
1. Student presentations

### 11/5 Outcome Evaluation and Sample Size Determination
1. Marta: Power and sample size
2. Group activity for determining sample size
3. Independent work on sample size calculations

### Readings
1. TBD

### 11/12 Process Evaluation
1. Laura Linnan: Process evaluation in community-based studies
2. In-class discussion of process evaluation plans

### Readings

### 11/19 Presentations: Evaluation Plans
1. Student presentations

### Assignment Due: Evaluation Plans

### 11/26 [Thanksgiving holiday] NO CLASS

### 12/3 Wrap Up and Evaluation