

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
SCHOOL OF SOCIAL WORK

Course Number: SOWO 940

Course Title: Development of Social Intervention Models

Semester & Year: Spring 2021

Location: Zoom

Instructor: Rebecca J. Macy, PhD, MSW (rjmacy@email.unc.edu; 919-843-2435; TTK Office #228C)

Office Hours: By appointment: please email me at rjmacy@email.unc.edu to set-up a time

Course Website: <https://www.unc.edu/sakai/>

Course Description

This PhD-level course focuses on preparing advanced graduate students with the knowledge and skills needed to design and develop interventions that address social needs, problems, and conditions.

Course Objectives

Upon completion of the course, students are expected to be able to:

- Identify and assess the social-environmental factors involved in defining a specific social need, problem, or condition;
- Analyze a social need, problem, or condition relevant to a particular population and identify appropriate interventions;
- Assess the theoretical and empirical support for alternative interventions that address a selected need, problem, or condition with a particular population;
- Describe and apply a logical sequence of research activities that guides the design, implementation, and evaluation of social interventions;
- Select and apply appropriate research methodology in developing a social intervention;
- Demonstrate awareness of the effect on intervention outcomes of moderators such as age, class, culture, disability status, ethnicity, gender, language, race, religion, and sexual orientation;
- Generate hypotheses for guiding empirical inquiry for testing social interventions;
- Develop a NIH Exploratory/Developmental Research Grant (R21) proposal, including a treatment manual

Expanded Description

This course will use a seminar format. In our discussions, we will examine and critique the assigned readings, provide consultation to one another, and respond to presentations by seminar participants and guests. Students are expected to attend classes in-person, to be prepared for class, and to contribute actively to class activities and discussions. If you find you will not be able to be in class for the full time period in-person, you should notify the instructor in advance. Students are expected to complete assigned and independent readings, contribute to the development of a positive learning environment in the seminar, and demonstrate learning through written assignments and seminar participation. Required readings are identified in the course schedule. Students should also conduct a considerable number (i.e., at least 25 articles but likely closer to 50 or so) of independent readings relevant to their own assignments and program of research, and these readings should be reflected and cited in papers and assignments. For such readings, students should emphasize peer-reviewed journals, though scholarly books and book chapters are also welcome.

Teaching Methods

Teaching methods include lectures, including those led by the instructor, by guest experts, and by students themselves. Additional teaching methods include consultation, discussion, and group activities. Students are expected to contribute during classroom. Questions on course topics and other issues in research and professional development are very welcome and highly encouraged.

Required Readings

- NIH Websites
 - NIH Exploratory/Developmental Research Grant Award (R21) overview: <https://grants.nih.gov/grants/funding/r21.htm>
 - NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Required): <https://grants.nih.gov/grants/guide/pa-files/PA-19-054.html>
 - NIH Funding Overview: <https://grants.nih.gov/funding/index.htm>
 - NIH "How to Apply" Guide: <https://grants.nih.gov/grants/how-to-apply-application-guide.html>
 - NIH RePORTer: <https://projectreporter.nih.gov/reporter.cfm>
- Gitlin, L. N., Kolanowski, A., & Lyons, K. J. (2021). *Successful grant writing: Strategies for health and human service professionals*. New York, NY: Springer Publishing Company, LLC.
- Shadish, W. R., Cook, T. D., & Campbell, D.T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. New York, NY: Houghton Mifflin.

Recommended Reading & Resources

- Access in A-Z Database List (<http://guides.lib.unc.edu/sb.php>):

- Health and Psychosocial Instruments database
- PsycTESTS instruments database
- American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). Washington, DC: Author.
- Fraser, M. W., Richman, J. M., Galinsky, M. J., & Day, S. H. (2009). *Intervention research: Developing social programs*. New York, NY: Oxford University Press.
- Hancock, G. R., Mueller, R. O., & Stapleton, L. M. (2018). *The reviewer's guide to quantitative methods in the social sciences* (2nd ed.). Routledge.
- NIH Glossary: <https://grants.nih.gov/grants/glossary.htm#A>
- Trevisan, M. S., & Walser, T. M. (2014). *Evaluability assessment: Improving evaluation quality and use*. SAGE Publications.
- Russell, S. W., & Morrison, D. C. (2020). *The Grant Application Writer's Workbook: National Institutes of Health Version*. Grant Writers' Seminars and Workshops, LLC.

Assignment Overview

All assignments for the course are listed briefly here. The instructor will provide students with detailed guidance and rubrics on an ongoing basis throughout the course.

- Mini-assignments and course participation: 30%
 - Intervention protocol: Draft of the initial concept: 5%
 - Specific aims, including outline of significance and innovation sections: 5%
 - Research strategy and approach, including study timeline: 5%
 - Measurement text, measurement table, and participant text: 5%
 - Analytic plan: 5%
 - Course participation: 5%
- Draft of full intervention protocol: 10%
- Presentation and defense of proposal: 10%
- Final full R21 proposal: 35%
- Final intervention protocol: 15%

Grading System

As per the School's policies, the course grading system is: H = 94-100; P = 80-93; L = 70-79 and F = 69 and below. In addition, the general course grading system is detailed here.

100-94: An outstanding assignment. Goes beyond the written assignment and exceeds the assignment criteria (e.g., the author effectively integrates relevant concepts and analysis from beyond the course). The author integrates all relevant course readings and content, demonstrates an exceptional grasp of the relevant concepts, creates a unique synthesis of the content, and produces an innovative analysis.

93-87: An excellent assignment. Meets or exceeds all the criteria described for the assignment. Careful thought and strong scholarship are evident.

86-80: A strong assignment. The criteria described for the assignment are met. The assignment is clearly written, builds on the relevant literature, and demonstrates serious reflection and effort.

79-75: A satisfactory assignment. Most all of the assignment criteria are met. The written work is generally clear, builds on the relevant literature, and demonstrates reflection and effort.

74-70: Assignment is adequate. The assignment is clearly written, the relevant literature is cited, and effort is evident. Most of the criteria are met, but some are not.

Less 70: There are problems with the assignment. For example, the author did not follow or complete the assignment guidelines, the author's written work is confusing and unclear; spelling or grammatical errors are prevalent; relevant literature is not cited, discussed, or integrated into the paper; the author provides no or little thoughtful analysis and original thought.

Policy on Incompletes and Late Assignments

A grade of "Incomplete" will be given only in extenuating circumstances and in accordance with SSW and University policy. Assignments are due in class on the day as noted in the course outline. Late assignments, i.e., those not handed in to the instructor in class on the day due, will be reduced 10 points for each day they are late. Please plan your work to have things completed on time. Papers that are handed in after the beginning of class will be considered late, and there is a 10% deduction for every 24 period past the due date/time of the paper. Please note that the assignment "clock" begins at the start of class. As an example, if the assignment is due at 2:00 pm, and turned in at 11:00 pm that same night, there will be a 10% deduction. If problems or questions arise as you are completing your assignments, please contact me as soon as possible. Many problems can be solved through timely communication. If a student meets unavoidable obstacles in meeting assignment due dates, then the student should discuss the circumstances with me as soon as possible to determine if an initial grade of incomplete (INC) would be appropriate.

Policy on Academic Dishonesty

Please refer to the APA Style Guide, The SSW Manual, and the SSW Writing Guide for information on attribution of quotes, plagiarism and appropriate use of assistance in preparing assignments. All written assignments should contain a signed pledge from you stating that, "I have not given or received unauthorized aid in preparing this written work." In keeping with the UNC Honor Code, if reason exists to believe that academic dishonesty has occurred, a referral will be made to the Office of the Student Attorney General for investigation and further action as required."

Supporting the Learning Needs of All Students

The School of Social Work aims to create an educational environment that supports the learning needs of all students. The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability, or pregnancy complications resulting in difficulties with accessing learning opportunities.

The Accessibility Resources and Service (ARS) Office at UNC has been established to coordinate all accommodations. If you might need accommodations at any point during the semester, please contact ARS prior to the beginning of the semester or as early in the semester as possible so that they can assist you; this process takes time. You can visit their website at <http://accessibility.unc.edu>, and contact ARS by email: accessibility@unc.edu or phone at 919-962-8300. The accommodations process starts with ARS and helps instruct Faculty at the School of Social Work on how best to proceed. As a School, we are committed to working with ARS and students to implement needed accommodations for all of our students. In addition to seeking ARS supports, please also reach out to your instructor to communicate how best your needs can be met once you have begun the ARS process.

Practicing Scholarly Professionalism in the Classroom

Students can develop their social work skills for research leadership by actively participating in this course, particularly through practicing self-awareness in class activities and discussions.

- **Participation.** A guideline for class discussions can be found in this Quakers adage for Meetings: No one speaks thrice until everyone has spoken once. Observe and consider how you participate in the class. Are you the type of person who tends to always say what is on your mind? Or are you the type of person that is more likely to hang back and let others talk? Both kinds of communication styles are needed in effective social work scholarship and research. If you tend to be more one way, challenge yourself to use more of the other style in class. Being able to discriminate when to actively engage in discussion and when to allow others to take the floor is essential for working with and leading research teams effectively.
- **Promoting social justice.** Practicing effective social work scholarship means attending to social justice. One important place we can begin this work is in the classroom. First, exclusive focus on the work at hand, although important, can obscure injustices and reinforce oppressions. Second, we can behave as if the classroom is a safe place, but that does not necessarily make it so. However, challenging oppression and injustices is not easily accomplished. As we work together over the next few weeks, I would like to recommend the following guidelines to help address social justice in this course. 1) **Be generous-** be willing to listen to others' experiences and perspectives; also be willing to learn from others' perspectives and experience without expecting others to inform. 2) **Be inclusive-** we should all strive to be willing to examine our assumptions, beliefs, and opinions critically. 3) **Take risks-** have courage to use your voice and express your perspectives. Likewise, encourage your colleagues to do the same*

* The idea of generosity, inclusiveness and risk and their importance in the classroom comes from Quashie, K. E. (2002). Fear and the professorial center. In (eds. B. Tusmith &

January 2021

M. T. Reddy) Race in the college classroom (pp. 96-107). Rutgers University Press: New Brunswick, NJ.

COURSE OVERVIEW & SCHEDULE

- **Week 1 (January 27th):** Overview & introductions– intervention research & proposal development
- **Week 2 (February 3rd):** Developing interventions– Conceptual frameworks & theories of change
- **Week 3 (February 10th):** Developing interventions– Protocols & program manuals
- **Week 4 (February 17th):** Developing proposals– Specific aims
 - **DUE: Intervention protocol: Draft of initial concept- mini-assignment (INTERVENTION PROTOCOL)**
- **Week 5 (February 24th):** Developing proposals– Significance & innovation
- **Week 6 (March 3rd):** Developing proposals– Research strategy & approach, with a focus on validity
 - **DUE: Specific aims mini-assignment outline, including outline of significance & innovation sections (GRANT PROPOSAL)**
- **Week 7 (March 10th):** Wellness Day– no class 😊
- **Week 8 (March 17th):** Evaluability Assessments, Feasibility Research, & Pilot Studies
 - **DUE: Draft research strategy & approach, including study timeline (GRANT PROPOSAL)**
- **Week 9 (March 24th):** Developing proposals– Research strategy & approach, with a focus on randomized designs
- **Week 10 (March 31st):** Developing proposals– Research strategy & approach, with a focus on measures and participants
 - **DUE: Draft of full intervention protocol (INTERVENTION PROTOCOL)**
- **Week 11 (April 7th):** Developing proposals– Research strategy & approach, with a focus on analytic plans
- **Week 12 (April 14th):** Intervention research in community settings
 - **DUE: Draft measurement text, measurement table, & participant text mini assignment (GRANT PROPOSAL)**
- **Week 13 (April 21st):** Team science & leadership in proposal development
 - **DUE: Draft analytic plan (GRANT PROPOSAL)**
- **Week 14 (April 28th):** Presentation and defense of proposal to faculty panel
- **Wednesday, May 5th at 11.59pm: Final assignments due, including both the R21 grant proposal & intervention protocol**

DETAILED COURSE OUTLINE

Week 1: Overview & introductions- intervention research & proposal development

- Introductions
- Overview of course and syllabus
- Introduction to intervention research and proposal development
- The context and challenge of rigorous intervention research

Readings

- Gitlin, L. N., Kolanowski, A., & Lyons, K. J. (2021). Successful grant writing: Strategies for health and human service professionals. New York, NY: Springer Publishing Company, LLC. Chapter 3, *Developing Your Ideas for Funding*
- Holmes, J. Flossing and the Art of Scientific Investigation. *The New York Times*. Retrieved from: <https://nyti.ms/2g0jzaW>
- How to solve U.S. social problems when most rigorous program evaluations find disappointing effects (part one in a series). (March 21, 2018). Retrieved from: <https://www.straighttalkonevidence.org/2018/03/21/how-to-solve-u-s-social-problems-when-most-rigorous-program-evaluations-find-disappointing-effects-part-one-in-a-series/>
- How to solve U.S. social problems when most rigorous program evaluations find disappointing effects (part two – a proposed solution). (April 13, 2018). Retrieved from: <https://www.straighttalkonevidence.org/2018/04/13/how-to-solve-u-s-social-problems-when-most-rigorous-program-evaluations-find-disappointing-effects-part-two-a-proposed-solution/>

Week 2: Developing interventions- Conceptual frameworks & theories of change

- Introduction and overview of intervention science
- Frameworks and strategies for developing treatment and program manuals
- Developing problem theories and theories of change

Readings

- Fraser, M. W., & Galinsky, M. J. (2010). Steps in intervention research: Designing and developing social programs. *Research on social work practice, 20*(5) 459-466. <https://doi.org/10.1177/1049731509358424>
- O'Cathain, A., Croot, L., Sworn, K., Duncan, E., Rousseau, N., Turner, K., Yardley, L., & Hoddinott, P. (2019). Taxonomy of approaches to developing interventions to improve health: A systematic methods overview. *Pilot and Feasibility Studies, 5*, 41. <https://doi.org/10.1186/s40814-019-0425-6>

- Lyon, A. R., & Koerner, K. (2016). User-centered design for psychosocial intervention development and implementation. *Clinical Psychology: Science and Practice*, 23(2), 180-200. <https://doi.org/doi:10.1111/cpsp.12154>
- Rimer, B. K., & Glanz, K. (2005). Theory at a glance: a guide for health promotion practice. Retrieved from <http://www.sbcccimplementationkits.org/demandrnmnch/wp-content/uploads/2014/02/Theory-at-a-Glance-A-Guide-For-Health-Promotion-Practice.pdf> - PART 1 ONLY and review any other parts of interest
- Wight, D., Wimbush, E., & Jepson, R. (2016). Six steps in quality intervention development (6SQulD). *Journal of Epidemiology and Community Health*. <https://doi.org/10.1136/jech-2015-205952>

Week 3: Developing interventions- Protocols & program manuals

- Introduction and overview of intervention science continued
- Frameworks and strategies for developing treatment and program manuals continued
- Developing program theories, activities, and strategies
- Intervention fidelity & a brief on implementation science

Readings

- Carroll, K. M., & Nuro, K. F. (2002). One size cannot fit all: A stage model for psychotherapy manual development. *Clinical Psychology: Science and Practice*, 9(4), 396-406. <https://doi.org/10.1093/clipsy.9.4.396>
- Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation science*, 4(1), 50. <https://doi.org/10.1186/1748-5908-4-50>
- Gearing, R. E., El-Bassel, N., Ghesquiere, A., Baldwin, S., Gillies, J., & Ngeow, E. (2011). Major ingredients of fidelity: a review and scientific guide to improving quality of intervention research implementation. *Clinical psychology review*, 31(1), 79-88. <https://doi.org/10.1016/j.cpr.2010.09.007>
- Kendall, P. C., Chu, B., Gifford, A., Hayes, C., & Nauta, M. (1999). Breathing life into a manual: Flexibility and creativity with manual-based treatments. *Cognitive and Behavioral Practice*, 5(2), 177-198. [https://doi.org/10.1016/S1077-7229\(98\)80004-7](https://doi.org/10.1016/S1077-7229(98)80004-7)

Recommended Readings

- Duncan, E. A., Nicol, M. M., & Ager, A. (2004). Factors that constitute a good cognitive behavioural treatment manual: A Delphi study. *Behavioural and*

Cognitive Psychotherapy, 32(02), 199-213.

<https://doi.org/10.1017/S135246580400116X>

- Fixsen, D. L., Blase, K. A., Naoom, S. F., & Wallace, F. (2009). Core implementation components. *Research on social work practice*, 19(5), 531-540.
<https://doi.org/10.1177/1049731509335549>
- Hermann, B. A., Meyer, E. C., Schnurr, P. P., Batten, S. V., & Walser, R. D. (2016). Acceptance and commitment therapy for co-occurring PTSD and substance use: A manual development study. *Journal of Contextual Behavioral Science*.
<https://doi.org/10.1016/j.jcbs.2016.07.001>

Week 4: Developing proposals- Specific aims

- Developing specific aims, generating research questions, and constructing hypotheses

Readings

- Gitlin, L. N., Kolanowski, A., & Lyons, K. J. (2021). *Successful grant writing: Strategies for health and human service professionals*. New York, NY: Springer Publishing Company, LLC. Chapter 7, *Overview of Common Sections of Proposals* & Chapter 8, *Heart of the Matter: The Aims*.
- Shadish, W. R., Cook, T. D., & Campbell, D.T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. New York, NY: Houghton Mifflin. Chapter 1, pp. 1-32.

Recommended Readings

- Russell, S. W., & Morrison, D. C. (2019). *The Grant Application Writer's Workbook: National Institutes of Health Version*. Grant Writers' Seminars and Workshops, LLC. Chapters 1-8.

Week 5: Developing proposals- Significance & innovation

- Conceptualizing significance and innovation in intervention research
- Developing a case for significance and innovation in your proposal development
- DUE: Intervention protocol outline mini-assignment

Readings

- Gitlin, L. N., Kolanowski, A., & Lyons, K. J. (2021). *Successful grant writing: Strategies for health and human service professionals*. New York, NY: Springer Publishing Company, LLC. Chapter 9, *Background and Significance*, & Chapter 21, *Understanding the Review Process*.

Recommended Readings

- Russell, S. W., & Morrison, D. C. (2019). *The Grant Application Writer's Workbook: National Institutes of Health Version*. Grant Writers' Seminars and Workshops, LLC. **Chapter 10 and Chapter 18.**

Week 6: Developing proposals- Research strategy & approach, with a focus on validity

- Review and refresh of statistical conclusion validity, internal validity, construct validity, and external validity

Readings

- Gitlin, L. N., Kolanowski, A., & Lyons, K. J. (2021). Successful grant writing: Strategies for health and human service professionals. New York, NY: Springer Publishing Company, LLC. **Chapter 10, *The Approach*.**
- Shadish, W. R., Cook, T. D., & Campbell, D.T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. New York, NY: Houghton Mifflin. **Chapters 2-3, pp. 33-102.**

Recommended Readings

- Belcher, B. M., Rasmussen, K. E., Kemshaw, M. R., & Zornes, D. A. (2016). Defining and assessing research quality in a transdisciplinary context. *Research Evaluation*, 25(1), 1-17. <https://doi.org/10.1093/reseval/rvv025>
- National Center for Complementary and Integrative Health, National Institutes of Health (US). Guidelines for developing a manual of operations and procedures (MOP). 2012.

Week 7: Wellness Day- NO CLASS ☺

Week 8: Evaluability Assessments, Feasibility Research, & Pilot Studies

- Focus on formative study approaches for developing intervention research methods, as well as initial evidence concerning interventions

Readings

- Bowen, D. J., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D., Bakken, S., Kaplan, C. P., Squiers, L., Fabrizio, C., & Fernandez, M. (2009). How we design feasibility studies. *American Journal of Preventive Medicine*, 36, 452-457. <https://doi.org/10.1016/j.amepre.2009.02.002>
- Dehar, M. A., Casswell, S., & Duignan, P. (1993). Formative and process evaluation of health promotion and disease prevention programs. *Evaluation Review*, 17, 204-220. <https://doi.org/10.1177/0193841X9301700205>

- Epstein, D., & Klerman, J. A. (2012). When is a program ready for rigorous impact evaluation? The role of a falsifiable logic model. *Evaluation Review*, 36(5), 375-401. <https://doi.org/10.1177/0193841X12474275>
- Leviton, L. C., Khan, L. K., Rog, D., Dawkins, N., & Cotton, D. (2010). Evaluability assessment to improve public health policies, programs, and practices. *Annual Review of Public Health*, 31, 213–233. <https://doi.org/10.1146/annurev.publhealth.012809.103625>
- Macy, R. J., Ermentrout, D. M., Redmond, P. H., Jr., Rizo, C. F., & Pollock, M. D. (2017). From novel to empirical: Developing community-based programs into research-ready programs. *Child Welfare Journal*, 94(3), 151–166.

Recommended reading

- Axford, N., Berry, V., & Little, M. (2006). Enhancing service evaluability: Lessons from a programme for disaffected young people. *Children & Society*, 20(4), 287-298. <https://doi.org/10.1002/CHI.893>
- Gitlin, L. N., Kolanowski, A., & Lyons, K. J. (2021). Successful grant writing: Strategies for health and human service professionals. New York, NY: Springer Publishing Company, LLC. Chapter 11, *Concept Papers, Pilot Studies, and Supporting Documentation*.
- Trevisan, M. S. (2007). Evaluability assessment from 1986 to 2006. *American Journal of Evaluation*, 28(3), 290-303. <https://doi.org/10.1177/1098214007304589>
- Trevisan, M. S., & Walser, T. M. (2014). Evaluability assessment: Improving evaluation quality and use. SAGE Publications.

Week 9: Developing proposals- Research strategy & approach, with a focus on randomized designs

- Review and refresh of randomized designs in the context of intervention research

Readings

- Gitlin, L. N., Kolanowski, A., & Lyons, K. J. (2021). Successful grant writing: Strategies for health and human service professionals. New York, NY: Springer Publishing Company, LLC. Chapter 10, *Common Pitfalls in Proposals*.
- Gottfredson, D. C., Cook, T. D., Gardner, F. E., Gorman-Smith, D., Howe, G. W., Sandler, I. N., & Zafft, K. M. (2015). Standards of evidence for efficacy, effectiveness, and scale-up research in prevention science: Next generation. *Prevention Science*, 16(7), 893-926. <https://doi.org/10.1007/s11121-015-0555-x>
- Schulz, K. F., Altman, D. G., & Moher, D. (2010). CONSORT 2010 statement: updated guidelines for reporting parallel group randomised trials. *BMJ* 2010, 340, 698–702. <https://doi.org/10.1136/bmj.c332>

- Shadish, W. R., Cook, T. D., & Campbell, D.T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. New York, NY: Houghton Mifflin. *Chapters 4-5, pp. 103-169 and Chapters 8 pp. 246-277.*

Recommended reading

- Bothwell, L. E., Greene, J. A., Podolsky, S. H., & Jones, D. S. (2016). Assessing the gold standard—lessons from the history of RCTs. *The New England Journal of Medicine*, 374, 2175-2181. <https://doi.org/10.1056/NEJMms1604593>
- Stuart, E. A., Bradshaw, C. P., & Leaf, P. J. (2015). Assessing the generalizability of randomized trial results to target populations. *Prevention Science*, 16, 475-485. <https://doi.org/10.1007/s11121-014-0513-z>

Week 10 Developing proposals- Research strategy & approach, with a focus on measures and participants

- Intervention research and measurement, considerations of meaningfulness, reliability and validity
- Determining measures for intervention research by linking to causal models and theories of change

Readings

- Pk, S. (2018). Our seat at the table: Mentorship, advocacy, & youth leadership in qualitative research. *Journal of Family Violence*, 33(8), 579-585. <https://doi.org/10.1007/s10896-018-9983-2>
- Shadish, W. R., Cook, T. D., & Campbell, D.T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. New York, NY: Houghton Mifflin. *Chapters 9-10, pp. 279-340.*

Week 11: Developing proposals- Research strategy & approach, with a focus on analytic plans

- Overview of statistical analyses and their use in intervention research
- Developing analytic plans for proposals
- Working with statisticians & analysts

Readings

- Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science*, 1(3), 98-101. <http://www.jstor.org/stable/20182143>
- Gupta, S. K. (2011). Intention-to-treat concept: a review. *Perspectives in clinical research*, 2(3), 109. <https://doi.org/10.4103/2229-3485.83221>

- Fairchild, A. J., & MacKinnon, D. P. (2014). Using mediation and moderation analyses to enhance prevention research. In Z. Sloboda & H. Petras (eds.), *Advances in Prevention Science Series: Defining Prevention Science* (pp. 537-555). NY: Springer. https://doi.org/10.1007/978-1-4899-7424-2_23

Week 12: Intervention research in community settings

- Review and refresh of community engaged studies strategy and approaches that can be used in intervention research

Readings

- Ammerman, A., Smith, T. W., & Calancie, L. (2014). Practice-based evidence in public health: improving reach, relevance, and results. *Annual review of public health*, 35, 47-63. <https://10.1146/annurev-publhealth-032013-182458>
- Mikesell, L., Bromley, E., & Khodyakov, D. (2013). Ethical community-engaged research: a literature review. *American Journal of Public Health*, 103(12), e7-e14. <https://doi.org/10.2105/AJPH.2013.301605>
- Shulha, L. M., Whitmore, E., Cousins, J. B., Gilbert, N., & al Hudib, H. (2016). Introducing evidence-based principles to guide collaborative approaches to evaluation: Results of an empirical process. *American Journal of Evaluation*, 37, 193–215. <https://doi.org/10.1177/1098214015615230>
- Starr, R. W. (2018). Moving from the mainstream to the margins: Lessons in culture and power. *Journal of Family Violence*, 33(8), 551-557. <https://doi.org/10.1007/s10896-018-9984-1>
- Yonas, M. A., Jones, N., Eng, E., Vines, A. I., Aronson, R., Griffith, D. M., ... & DuBose, M. (2006). The art and science of integrating undoing racism with CBPR: Challenges of pursuing NIH funding to investigate cancer care and racial equity. *Journal of Urban Health*, 83(6), 1004-1012. <https://doi.org/10.1007/s11524-006-9114-x>

Recommended readings:

- Hansen, A. B. G., & Jones, A. (2017). Advancing “real-world” trials that take account of social context and human volition. *Trials*, 18(531), 1-3. <https://doi.org/10.1186/s13063-017-2286-8>
- Marsiglia, F. F., & Booth, J. M. (2015). Cultural adaptation of interventions in real practice settings. *Research on Social Work Practice*, 25, 423-432. <https://doi.org/10.1177/1049731514535989>
- Muhammad, M., Wallerstein, N., Sussman, A. L., Avila, M., Belone, L., & Duran, B. (2015). Reflections on researcher identity and power: The impact of positionality on community based participatory research (CBPR) processes and

outcomes. *Critical Sociology*, 41 (7-8), 1045-1063.
<https://doi.org/10.1177/0896920513516025>

Week 13: Team science & leadership in proposal development

- Overview and introduction to leading the development of a proposal
- Overview and introduction to other important aspects of proposal development including, building study teams, biosketches, budgets, data safety monitoring plans, protections of human participants, and resource plans

Readings

- Gitlin, L. N., Kolanowski, A., & Lyons, K. J. (2021). Successful grant writing: Strategies for health and human service professionals. New York, NY: Springer Publishing Company, LLC. **Chapter 18, *Collaborating for Team Science***.
- Hall, K. L., Vogel, A. L., Huang, G. C., Serrano, K. J., Rice, E. L., Tsakraklides, S. P., & Fiore, S. M. (2018). The science of team science: A review of the empirical evidence and research gaps on collaboration in science. *American Psychologist*, 73(4), 532. <http://dx.doi.org/10.1037/amp0000319>
- Kraicer, J. (1997). The art of grantsmanship. Retrieved from https://medecine.umontreal.ca/wpcontent/uploads/sites/8/2015/01/CatalogueAteliersFacMed_ICM_Annexe1.pdf
- Ledford, H. (2015). Team science. *Nature*, 525(7569), 308.
- Stokols, D., Misra, S., Moser, R. P., Hall, K. L., & Taylor, B. K. (2008). The ecology of team science: understanding contextual influences on transdisciplinary collaboration. *American journal of preventive medicine*, 35(2), S96-S115. <https://doi.org/10.1016/j.amepre.2008.05.003>

Week 14: Presentation and defense of proposal to faculty panel

- Students will give a presentation and defense of their R21 proposal and intervention protocol to a panel of faculty for critique and feedback. Panel participants will be announced once they are confirmed.

Wednesday, May 5th at 11.59pm:

Final assignments due, including both the R21 proposal and intervention protocol

1. Intervention Protocol- Draft of Initial Concept *About 10 pages; 05% of the overall course grade*

For this assignment, you will develop the initial (i.e., draft) conceptual model underlying your intervention, as well as the following draft sections of your program or treatment protocol: (1) Program/treatment overview, description & rationale; (2) Conception of the disorder or problem that your program/treatment will address; & (3) The overall program/treatment goals.

For each of these sections, please see the list of topics to be included detailed below. Please note that these may not be discrete sections in your document because there is overlap among these three content areas. Please organize your draft content in whatever way works best to explain your intervention.

1. (30 points) The **Program or Treatment Overview, Description & Rationale** section of the protocol should:

- ✓ Introduce the problem & program to the reader
- ✓ Describe why the problem is pressing & serious
- ✓ Generally describe the program, including who is the target of the program & how the program will be delivered
- ✓ Overview how the program will address this pressing & serious problem
- ✓ Describe the ways in which the program is novel & innovative
- ✓ Address the evidence & research that supports the program's approach
 - Include relevant research concerning the best approaches to address your problem focus
 - Explain how your program & approach builds on and innovates from the current evidence & research

2. (30 points) The **Conception of the Disorder or Problem** section of the protocol should include both a problem theory & a theory of change. For the problem theory, consider using the risk & protective factors framework to help explain your conceptualization of the problem. For the theory of change, consider using both a figure as well as text to explain how your intervention will create the planned changes and outcomes. Include relevant evidence & research concerning the disorder or problem.

- ✓ The **Problem Theory** section of your protocol should
 - Define & explain the problem & its causes, including any concerns and/or factors that are specific to your target population (which you explained in the first section)
 - Identify which causal or contextual factors are modifiable (i.e., what factors are your intervention's targets)
- ✓ The **Theory of Change** section of your protocol should
 - Overview the strategies your intervention will use to create change

- Explain the mechanisms of change (i.e., how the planned intervention approaches will make a positive difference in the modifiable factors)
- Include both the short-term & long-term outcomes of your intervention

3. (30 points) The **Overall Program/Treatment Goals** content of your protocol should detail the short-term and long-term outcomes of your intervention. In other words, explain the planned results of your intervention. Consider using the SMART framework to help you explain your goals (see the CDC handout: *Developing Program Goals and Measurable Objectives*) and make your goals:

- ✓ Specific
- ✓ Measurable
- ✓ Achievable
- ✓ Relevant
- ✓ Time-bound

4. (10 points) Presentation is important! Please produce a document that:

- ✓ Is clear & concise;
- ✓ Is written with excellent grammar & correct spelling;
- ✓ Cites evidence appropriately & accurately, following the APA style guide.

2. Draft of Specific Aims, Including Outline of Significance and Innovation Sections

Two pages; 05% of the overall course grade

The **Specific Aims** section of a proposal is arguably the most important section of any proposal because reviewers form their initial impressions of your proposed project by reading this text. Accordingly, this section of the proposal should begin to make a compelling case for the proposal by highlighting the project's innovation and potential to significantly advance knowledge. Specifically, for this assignment, you will develop the following sections of your R21 proposal, the specific aims, which will include an introduction leading up to the aims, as well as the significance and innovation sections of your proposal. Detailed guidance for this assignment appears below.

1. (30 points) Develop a few **introductory paragraphs** that *briefly* explicate: the current state of the knowledge; the critical gaps in knowledge and/or practice that your proposed project will address; how your proposed project will address these gaps in novel ways; what significant products your project will produce; and what activities your project will undertake to achieve these products.
2. (40 points) Develop **2-3 specific aims** that detail and elucidate the primary goals and activities of your project. Include the hypotheses that will be tested by your proposed project.
3. (10 points) Develop a set of bullet points that detail and elucidate the **significance** of your proposed project. Explain how your project addresses an important problem or a critical barrier to progress in the field. Ensure that you have fully reviewed the literature in your area and that you are citing all the relevant research.
4. (10 points) Develop a set of bullet points that detail and elucidate the **innovation** of your proposed project. Explain how your application will challenge and/or shift current research or practice paradigms through novel theoretical concepts, approaches or methodologies, instrumentation, or interventions. Again, ensure that you have fully reviewed the literature in your area and that you are citing all the relevant research.
5. (10 points) Presentation is important! Please produce a document that:
 - ✓ Is clear & concise;
 - ✓ Is written with excellent grammar & correct spelling;
 - ✓ Cites evidence appropriately & accurately, following the Vancouver style guide.

3. Draft of Research strategy and approach, including study timeline

About three pages; 05% of the overall course grade

The **Research Strategy and Approach** section of a proposal details the project activities, methods, and makes a strong case for the scientific rigor of the project. This section should also explicate how the aims of the project will be achieved through a specific and comprehensive research plan. Detailed guidance for this assignment appears below.

1. (60 points) Organizing the description of the study activities by each of your proposed aims, explicate all the study activities, including intervention implementation and fidelity, data collection, and randomization (if relevant). Through this detailed text make a strong case that your proposed study design is justified and appropriate to address all key project outcomes as well as test all your study aims and/or hypotheses. Note any potential pitfalls to the research plans and describe how such challenges— if they arise— could be addressed. In addition, address potential human participant ethical issues adequately and thoughtfully.
2. (30 points) Describe the study timeline in detail, taking into account start-up activities, intervention delivery, the anticipated rate of enrollment, and planned follow-up assessments and data collection. Make a case that the projected timeline is feasible and well justified. Develop a Gantt chart to explicate the study timeline in addition to complement the proposal text.
5. (10 points) Presentation is important! Please produce a document that:
 - ✓ Is clear & concise;
 - ✓ Is written with excellent grammar & correct spelling;
 - ✓ Cites evidence appropriately & accurately, following the Vancouver style guide.

4. Draft of Full Intervention Protocol

About 20-40 pages; 10% of the overall course grade

For this assignment, you will: (1) include a revised conceptual model for your intervention (i.e., program/treatment overview, description & rationale; conception of the disorder or problem that your program/treatment will address; & the overall program/treatment goals); (2) develop the draft sections of your program or treatment protocol that detail and explain the treatment techniques, goals, and format, i.e., the program theory; and (3) develop the draft sections of your program or treatment protocol that detail and explain example session content. Please build from the work you started in the prior, related course assignments. Please note that these may (or may not) be discrete sections in your document. Please organize your draft content in whatever way works best to explain your intervention.

1. (30 points) To detail the **Program Theory** for your intervention, specifically address & describe:

- Format & structure for intervention delivery
- Meeting/session formats
- Frequency & intensity of meetings/sessions
- Flexibility in intervention content & delivery (i.e., to what extent and how can the intervention be adapted when clients' presenting problems varies, crises arise, etc.)
- Any extra-session tasks (e.g., "homework")
- Address the evidence & research that supports the program's theory

2. (10 points) Develop a **Logic Model** the overviews & explains the program theory for your intervention

3. (each example session content is worth 25 points for a total of 50) Describe in detail how the intervention will work for **two meetings or sessions** (or in whatever way the program/treatment will be delivered)

- Title
- Length of meeting/session, including timing & meeting agenda
- Objectives & how objectives related to overall program goals
- Detailed descriptions of meeting activities, with information about how the activities meet the session objectives
 - Recommended scripts, dialogues, etc.
- Handouts
- Homework instructions & suggestions (if needed)
- Meeting/session tips & suggestions

4. (10 points) Presentation is important! Please produce a document that:

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- ✓ Is clear & concise;
- ✓ Is written with excellent grammar & correct spelling;
- ✓ Cites evidence appropriately & accurately (if necessary), following the APA style guide.

5. Draft of Measurement Text, Measurement Table, and Participant Text

About one pages; 05% of the overall course grade

Even though the **Measurement and Participant** text are part of the **Research Strategy and Approach** sections of a R21 proposal, these sections deserve special attention in their development because of the importance of these components for any study. Accordingly, this section should explain how participants will be recruited, screened (if necessary), enrolled, and consented in the study, as well as explicate what measures will be used to collect meaningful data from participants. Detailed guidance for this assignment appears below.

1. (25 points) Detail the process and rationale for selecting the study constructs and measures. Explain how these constructs and measures are associated with the study's underlying frameworks, as well as how they will produce meaningful and robust data to test the study aims and hypotheses. Make a strong case for the measures validity and reliability based on prior research. If you will need to develop some measures and/or data instruments for the study, provide a clear and compelling rationale for why and how such development will be accomplished.
2. (25 points) Develop a comprehensive table detailing all the study constructs and measures. Include information in the table concerning who will collect the measures (i.e., research staff), who will provide the data for the measures (i.e., participants), and when and how often the measures will be administered and/or collected.
3. (30 points) Explicate who will participate in the study and how. Include detailed plans for participant recruitment outreach, enrollment and consent, retention, managing participant dropouts, missed visits, and losses to follow-up as relevant to ensure robust data collection. In addition, address potential ethical issues adequately and thoughtfully.
4. (10 points) Presentation is important! Please produce a document that:
 - ✓ Is clear & concise;
 - ✓ Is written with excellent grammar & correct spelling;
 - ✓ Cites evidence appropriately & accurately, following the Vancouver style guide.

6. Draft of Analytic Plan

About one pages; 05% of the overall course grade

Even though the **Analytic Plan** text is part of the Research Strategy and Approach section of an R21 proposal, this section deserve special attention in its development because of its importance for any study. Accordingly, this section should explicate how the collect data will be analyzed rigorously and robustly to address the proposed study aims and hypotheses. Detailed guidance for this assignment appears below.

1. (90 points) Detail the planned analyses and statistical approach. Make a case that the planned analyzes are appropriate for the proposed study design. Describe how the study design is adequately powered to answer the research question(s), test the proposed hypothesis/hypotheses, and provide interpretable results. Explain the procedures for data management and quality control of data as applicable.
2. (10 points) Presentation is important! Please produce a document that:
 - ✓ Is clear & concise;
 - ✓ Is written with excellent grammar & correct spelling;
 - ✓ Cites evidence appropriately & accurately, following the Vancouver style guide.

**7. Development of Social Intervention Models
SOWO 940
Presentation & Proposal Defense**

Presenter's Name: _____

The Presentation...	Strongly Disagree	Disagree	Neither Agree/Disagree	Agree	Strongly Agree
Conveyed the topic's & intervention's significance (<i>Does the project address an important problem?</i>)?					
Conveyed the topic's & intervention's innovation (<i>Is the intervention &/or approach novel?</i>)?					
Conveyed a rigorous & robust study approach (i.e., <i>Appropriate, well-reasoned, feasible?</i>)?					
Was clearly based in evidence & research?					
Was organized & meaningful (<i>Could you explain the program to a friend in a few words after seeing this presenter?</i>)?					
Was engaging (<i>Did the presenter keep your interest?</i>)?					
Was compelling (<i>Would you fund the program if you could?</i>)?					
What do else do you want the presenter to know about your impressions of the intervention, study, & presentation?					

NOTE: Presentation can be no longer than 15 minutes and given in any way the presenter chooses (PPT, Prezi, with/without handouts, etc.).

8. Final Intervention Protocol **~20 to 40 pages; 15% of overall course grade**

One of the final course assignments is a final version of the program or treatment protocol you have been working to develop over the course of the semester.

To complete this assignment, combine the prior assignments from the course into one overall, comprehensive, and well-integrated document: (1) the Problem Theory & Change Theory Assignment; (2) the Program Theory Assignment; & (3) the Example Intervention Content Assignment. Your final assignment will be graded on the criteria below.

1. (20 points) Presentation is important! Please produce a document that:
 - ✓ Is clear & concise;
 - ✓ Is written with excellent grammar & correct spelling;
 - ✓ Cites evidence appropriately & accurately, following the APA style guide; &
 - ✓ Is appealing to look at & inviting to use, including the inclusions of graphics, figures, fonts, and stylistic elements to engage the reader.

2. (40 points) Once combined & finalized, ensure that your protocol includes the: (1) program's/ treatment's overview, description, & rationale; (2) conception of the disorder or problem that the program/treatment is addressing; (3) program/treatment goals; (4) example session content for the program/treatment; & (5) explanation of general program/treatment format.

3. (20 points) Ensure that your protocol has what it takes to make it in the "real world." Specifically, ensure that your program protocol:
 - ✓ Anticipates & addresses real-world problems that often arise in a practice settings; provide troubleshooting guidelines to address these problems;
 - ✓ Includes detailed instructions that are also easy for readers of your protocol to use & understand (e.g., summaries & outlines & checklists);
 - ✓ Emphasizes the unique & essential elements of your intervention; &
 - ✓ Explains how the intervention is ecologically and socioculturally relevant (i.e., your program will be acceptable, feasible, and meaningful for the intended context).

4. (20 points) Ensure that you addressed the feedback you have received throughout your assignments earlier in the semester when producing your final assignment.

9. Final R21 Proposal

No more than 7 pages total (with one page for specific aims and six pages for all other sections); 35% of overall course grade

One of the final course assignments is a final version of the R21 proposal you have been working to develop over the course of the semester. To complete this assignment, combine the prior and relevant assignments from the course into one overall, comprehensive, and well-integrated document. Your final assignment will be graded on the criteria below.

1. (20 points) Presentation is important! Please produce a document that:
 - ✓ Is clear & concise;
 - ✓ Is written with excellent grammar & correct spelling;
 - ✓ Cites evidence appropriately & accurately, following the Vancouver style guide;
 - ✓ Follows all NIH R21 format & style guidelines accurately and completely; and
 - ✓ Is appealing to look at & inviting to read, as well as conveys your grantsmanship by using figures, tables, headers, and other stylistic elements.

2. (60 points) Once combined & finalized, ensure that your proposal includes high-quality versions of the following sections : (1) Specific Aims, (2) Significance, (3) Innovation, (4) Research Strategy and Approach, which also includes (5) the Study Timeline, (6) the Measurement description and table, (7) the Participant description, and (8) the Analytic Plan. Ensure all that all sections of the proposal fit together well and that there is an overall flow to the proposal. The instructor will also be reviewing the proposal for whether it makes a compelling and rigorous case for the project (i.e., if I were on a review panel in which this proposal appeared would I score it highly?).

3. (20 points) Ensure that you addressed the feedback you have received throughout your assignments earlier in the semester when producing your final assignment.

ASSIGNMENT DUE DATE SUMMARY

- #1. Week 4 (February 17th): Intervention protocol: Draft of initial concept- mini-assignment (INTERVENTION PROTOCOL)
- #2. Week 6 (March 3rd): Specific aims mini-assignment outline, including outline of significance & innovation sections (GRANT PROPOSAL)
- #3. Week 8 (March 17th): Draft research strategy & approach, including study timeline (GRANT PROPOSAL)
- #4. Week 10 (March 31st): Draft of full intervention protocol (INTERVENTION PROTOCOL)
- #5. Week 12 (April 14th): Draft measurement text, measurement table, & participant text mini assignment (GRANT PROPOSAL)
- #6. Week 13 (April 21st): Draft analytic plan (GRANT PROPOSAL)
- #7. Week 14 (April 28th): Defense of proposal to faculty panel
- #8 & #9. Wednesday, May 5th at 11.59pm: Final assignments due, including both the R21 grant proposal & intervention protocol