

The Power of Beliefs

Professor Luke Chang, PhD

PSYC 84 Spring 2018	3A Mon 3:30-5:20; Thur 4:30-6:20 x-period Mon 5:35-6:25 Moore 302
Office Hours Location: Moore Hall 357	Wed 1-3:00 pm luke.j.chang@dartmouth.edu 603.646.2056

COURSE DESCRIPTION AND OBJECTIVES

How do beliefs affect clinical outcomes? This course provides an in-depth examination of the role of beliefs and expectations in the manifestation of psychological symptoms and their treatment. Topics to be covered include the psychological and biological bases of pharmacological placebo effects, the mechanisms underlying psychotherapy (e.g., patient and provider expectations), and also how cultural expectations impact how psychological symptoms are experienced (e.g., hallucinations, delusions, and somatization).

GOALS

- 1) Learn how to think critically about clinical research
- 2) Learn about how the history of placebos and how they have shaped clinical research
- 3) Learn about how the therapeutic relationship can affect clinical outcomes
- 4) Learn how culture can impact the manifestation of psychological symptoms

REQUIREMENTS

1 or 6

TEXT BOOKS

Kirsch, Irving. 2010. *The Emperor's New Drugs: Exploding the Antidepressant Myth*. Basic Books.

Wampold, Bruce E. 2013. *The Great Psychotherapy Debate: Models, Methods, and Findings 2nd Edition*. Routledge.

ASSIGNMENTS

READINGS We will be reading the two assigned books and published peer-reviewed articles and book chapters. Reading the materials before class is essential to a successful course experience. Some of the readings can be dense. Reading the materials before class is essential to participating in the class discussions. The reading list and electronic PDFs (or links) will be posted on Canvas.

DISCUSSION QUESTIONS (10% of grade) Understanding the key concepts presented in the readings and how they are related to your own interests and lives is a core component of the course. Two discussion questions must be uploaded to canvas **BEFORE** class. These questions might be about: (1) things you didn't understand in the reading, (2) things you found interesting in the reading that you would like to talk more about, (3) things that you disagreed with in the reading or didn't find convincing, (4) things that you think have broader importance for clinical diagnosis, treatment, or policy decisions. Late discussion questions will not be accepted. However, each student will have two 'free' days in which they do not need to submit a question, please plan accordingly. Students do not need to submit a question when they are leading the discussion (see TOPIC PRESENTATION).

CLASS PARTICIPATION (20% of grade) This is a discussion based seminar. You will be expected to be prepared to discuss the required readings each day of class. The discussions will largely be driven by topics that you and your peers find interesting or controversial in the readings.

TOPIC PRESENTATION (15% of grade) Each student will lead a discussion of the course readings. Students are expected to be well versed on the topic and will likely need to do additional background reading. Presenters are expected to come up with interesting questions to help facilitate discussion. Presenters can meet with Professor Chang during office hours to help identify the key points, prepare an outline, or locating additional references. Presenters do not need to submit discussion questions.

CRITIQUE PAPER (25% of grade) Learning how to think critically about clinical research is a core component of this course. In this paper you will present one critique of clinical research and will review research supporting your argument. Topics should be generally related to the ideas related to the readings. This should be written like a normal academic essay and must include a citation list in APA style. Format: 3-7 typed double-space pages, 11pt Ariel or Times font. (bibliography not included in the page limit). **Paper Due at Midnight 4/26/18.**

FINAL PAPER (30% of grade) A key component of this course is learning how to use experiments to test hypotheses about clinical mechanisms. Each student will attempt to test an idea that they develop related to the course. Students may work in pairs or individually, but each will individually write their own paper. The data might be downloaded from publically available datasets, provided by a researcher via an email request, or using a meta-analysis of published papers. You will develop a research question and an experimental design to test it, collect data, analyze it, and write up the results. Each person will independently write a final report of the research. The final written paper should be in journal format using APA style with an abstract, intro, methods, results, discussion, and references. Format 12-20 typed double-space pages, 11pt Ariel or Times font. (bibliography not included in the page limit). Each person is expected to write their own intro and conclusion, but the group can collaborate on the methods and results sections if they want. At the end of the class each group will give a 15 minute presentation on their project (background, hypothesis, experimental design, results, analyses, conclusions). **Paper Due at Midnight 6/4/18.**

- Paper: 15%
- Presentation: 10%

- Group participation: 5%

CLASSROOM POLICIES

HONOR CODE Students are expected to strictly adhere to the Dartmouth Academic Honor Principle. As described in the Student Handbook, fundamental to the principle of independent learning is the requirement of honesty and integrity in the performance of academic assignments, both in the classroom and outside. Dartmouth operates on the principle of academic honor. Students who submit work that is not their own or who commit other acts of academic dishonesty will forfeit the opportunity to continue at Dartmouth. If you have questions or concerns regarding this policy during the course, please contact Professor Chang.

PLAGIARISM Writing about scientific publications without just rephrasing is difficult, particularly when not everything is fully understood. Doing this properly takes time and practice, and one goal of the course is to move us in that direction. I don't expect to see a perfect scientific treatment at this stage. But I do want to see evidence of **independent thought** when considering the material and implications (rather than just regurgitating it), and some degree of creativity. When quoting, be sure appropriate citations are made.

MISSED ASSIGNMENTS A student will only be excused from an assignment by permission of the Instructor and on the basis of a written note from a dean, doctor, or supervisor of official college- sponsored events being held off-campus and requiring a students' absence. If excused, a make-up must be taken as soon as possible (usually within 1 day of the originally-scheduled exam/assignment date).

LATE ASSIGNMENTS All papers and presentations are due at the date and time specified. Scores for late papers will be reduced by 10% for every 24-hour period a paper is late. No extensions will be granted due to computer failure, roommate difficulties, printing problems, etc. According to College policy, there are no excused absences from class for participation in College-sponsored extracurricular activities.

TECHNOLOGY Computers and tablets may be used in class, but use of cell phones will not be permitted (no phone calls, ringers, or texting).

DISABILITIES Any student with a documented disability needing academic adjustments or accommodations is requested to speak with me **by the end of the second week of the term**. All discussions will remain confidential, although the Academic Skills Center may be consulted to verify the documentation of the disability.

RELIGIOUS OBSERVANCES Some students may wish to take part in religious observances that occur during this academic term. If you have a religious observance which conflicts with your participation in the course, please meet with me **by the end of the second week of the term** to discuss appropriate accommodations.

READINGS

What is a mental disorder?

2-Diagnoses

Rosenhan, D. L. (1973). On being sane in insane places. *Science*, 179 (4070), 250-258.

Szasz, T. S. (1960). The myth of mental illness. *American psychologist*, 15(2), 113.

Regier, D. A., Narrow, W. E., Clarke, D. E., Kraemer, H. C., Kuramoto, S. J., Kuhl, E. A., & Kupfer, D. J. (2013). DSM-5 field trials in the United States and Canada, Part II: test-retest reliability of selected categorical diagnoses. *American journal of psychiatry*.

3-Cohort Effects

Kirmayer, L. J., & Groleau, D. (2001). Affective disorders in cultural context. *Psychiatric Clinics of North America*, 24(3), 465-478.

Klerman, G. L., & Weissman, M. M. (1989). Increasing rates of depression. *JAMA*, 261(15), 2229-2235.

What is a placebo?

4-History of Placebo

Shapiro, Arthur K., and Elaine Shapiro. 2000. Chapter 1. The placebo effect in medical history. *The Powerful Placebo: From Ancient Priest to Modern Physician*. JHU Press.

Shapiro, Arthur K., and Elaine Shapiro. 2000. Chapter 7. The history of the double-blind procedure. *The Powerful Placebo: From Ancient Priest to Modern Physician*. JHU Press.

5-Psychological and Neurobiological Mechanisms of Placebos

Ashar, Y., Chang, L.J., & Wager, T.W. (In Press). Brain and psychological mechanisms of the placebo effect: An affective appraisal account. *Annual Reviews of Clinical Psychology*.

Wager, T. D., & Atlas, L. Y. (2015). The neuroscience of placebo effects: connecting context, learning and health. *Nature Reviews Neuroscience*, 16(7), 403-418.

6-Placebos Examples

Amanzio, M., & Benedetti, F. (1999). Neuropharmacological dissection of placebo analgesia: expectation-activated opioid systems versus conditioning-activated specific subsystems. *The Journal of Neuroscience*, 19(1), 484-494.

De la Fuente-Fernández, R., Ruth, T. J., Sossi, V., Schulzer, M., Calne, D. B., & Stoessl, A. J. (2001). Expectation and dopamine release: mechanism of the placebo effect in Parkinson's disease. *Science*, 293(5532), 1164-1166.

Vits, S., Cesko, E., Enck, P., Hillen, U., Schadendorf, D., & Schedlowski, M. (2011). Behavioural conditioning as the mediator of placebo responses in the immune system. *Philosophical Transactions of the Royal Society of London B: Biological Sciences*, 366(1572), 1799-1807.

Are Antidepressants Placebos?

7-Emperor's New Drugs Part I

Kirsch, Irving. 2010. Chapter 1: Listening to Prozac, but hearing placebo. *The Emperor's New Drugs: Exploding the Antidepressant Myth*. Basic Books.

Kirsch, Irving. 2010. Chapter 2: The 'Dirty little secret'. *The Emperor's New Drugs: Exploding the Antidepressant Myth*. Basic Books.

Kirsch, Irving. 2010. Chapter 3: Countering the critics. *The Emperor's New Drugs: Exploding the Antidepressant Myth*. Basic Books.

Kirsch, Irving. 2010. Chapter 4: The myth of the chemical imbalance. *The Emperor's New Drugs: Exploding the Antidepressant Myth*. Basic Books.

8-Emperor's New Drugs Part II

Kirsch, Irving. 2010. Chapter 5: The placebo effect and the power of belief. *The Emperor's New Drugs: Exploding the Antidepressant Myth*. Basic Books.

Kirsch, Irving. 2010. Chapter 6: How placebos work. *The Emperor's New Drugs: Exploding the Antidepressant Myth*. Basic Books.

Kirsch, Irving. 2010. Chapter 7: Beyond antidepressants. *The Emperor's New Drugs: Exploding the Antidepressant Myth*. Basic Books.

9-Do antidepressants work?

Fournier, J. C., DeRubeis, R. J., Hollon, S. D., Dimidjian, S., Amsterdam, J. D., Shelton, R. C., & Fawcett, J. (2010). Antidepressant drug effects and depression severity: a patient-level meta-analysis. *JAMA*, 303(1), 47-53.

Rutherford, B. R., Wall, M. M., Brown, P. J., Choo, T. H., Wager, T. D., Peterson, B. S., ... & Roose, S. P. (2016). Patient Expectancy as a Mediator of Placebo Effects in Antidepressant Clinical Trials. *American Journal of Psychiatry*.

Margraf, J., Ehlers, A., Roth, W. T., Clark, D. B., Sheikh, J., Agras, W. S., & Taylor, C. B. (1991). How "blind" are double-blind studies? *Journal of consulting and clinical psychology*, 59(1), 184.

Moncrieff, J., Wessely, S., & Hardy, R. (1998). Meta-analysis of trials comparing antidepressants with active placebos. *The British Journal of Psychiatry*, 172(3), 227-231.

Cipriani, A., Furukawa, T. A., Salanti, G., Chaimani, A., Atkinson, L. Z., Ogawa, Y., ... & Egger, M. (2018). Comparative efficacy and acceptability of 21 antidepressant

drugs for the acute treatment of adults with major depressive disorder: a systematic review and network meta-analysis. *The Lancet*.

Is Psychotherapy a Placebo?

10-Contextual vs Medical Model

Wampold, Bruce E. 2013. Chapter 1. History of medicine, methods, and psychotherapy: Progress and omissions. *The Great Psychotherapy Debate: Models, Methods, and Findings 2nd Edition*. Routledge.

Wampold, Bruce E. 2013. Chapter 2. Contextual Model: Psychotherapy as a socially situated healing practice. *The Great Psychotherapy Debate: Models, Methods, and Findings 2nd Edition*. Routledge.

Wampold, Bruce E. 2013. Chapter 3. Contextual Model versus medical model: choosing a progressive research program. *The Great Psychotherapy Debate: Models, Methods, and Findings 2nd Edition*. Routledge.

11-Meta-Analyses

Wampold, Bruce E. 2013. Chapter 4. Absolute Efficacy: The benefits of psychotherapy established by meta-analysis. *The Great Psychotherapy Debate: Models, Methods, and Findings 2nd Edition*. Routledge.

Wampold, Bruce E. 2013. Chapter 5. Relative Efficacy: The dodo bird still gets it. *The Great Psychotherapy Debate: Models, Methods, and Findings 2nd Edition*. Routledge.

13-Common Factors

Wampold, Bruce E. 2013. Chapter 6. Therapist effects: An ignored but critical factor. *The Great Psychotherapy Debate: Models, Methods, and Findings 2nd Edition*. Routledge.

Wampold, Bruce E. 2013. Chapter 7. General effects: Surviving challenges and anticipating additional evidence. *The Great Psychotherapy Debate: Models, Methods, and Findings 2nd Edition*. Routledge.

14-Therapeutic relationship

Rakel, D., Barrett, B., Zhang, Z., Hoefft, T., Chewning, B., Marchand, L., & Scheder, J. (2011). Perception of empathy in the therapeutic encounter: Effects on the common cold. *Patient education and counseling*, 85(3), 390-397.

Ackerman, S. J., & Hilsenroth, M. J. (2003). A review of therapist characteristics and techniques positively impacting the therapeutic alliance. *Clinical psychology review*, 23(1), 1-33.

Weinberger, J. (1995). Common factors aren't so common: The common factors dilemma. *Clinical Psychology: Science and Practice*, 2(1), 45-69.

15-Expectations

Ilardi, S. S., & Craighead, W. E. (1994). The role of nonspecific factors in cognitive-behavior therapy for depression. *Clinical Psychology: Science and Practice*, 1(2), 138-155.

Gracely, R., Dubner, R., Deeter, W., & Wolskee, P. (1985). Clinician's expectations influence placebo analgesia. *The Lancet*, 325(8419), 43.

Guastella, A. J., Gray, K. M., Rinehart, N. J., Alvares, G. A., Tonge, B. J., Hickie, I. B., ... & Einfeld, S. L. (2015). The effects of a course of intranasal oxytocin on social behaviors in youth diagnosed with autism spectrum disorders: a randomized controlled trial. *Journal of Child Psychology and Psychiatry*, 56(4), 444-452.

Luborsky, L., Diguier, L., Seligman, D. A., Rosenthal, R., Krause, E. D., Johnson, S., ... & Schweizer, E. (1999). The researcher's own therapy allegiances: A "wild card" in comparisons of treatment efficacy. *Clinical Psychology: Science and Practice*, 6(1), 95-106.

Rosenthal, R. (1994). Interpersonal expectancy effects: A 30-year perspective. *Current directions in psychological science*, 3(6), 176-179.

16-Specific Factors

Wampold, Bruce E. 2013. Chapter 8: Specific effects: Where are they? *The Great Psychotherapy Debate: Models, Methods, and Findings 2nd Edition*. Routledge.

Are psychological disorders cultural constructions?

18-Are mental disorders universal?

Kleinman, A. (2008). Chapter 2. Do psychiatric disorders differ in different cultures? The methodological questions. *Rethinking psychiatry*. Simon and Schuster.

Kleinman, A. (2008). Chapter 3. Do psychiatric disorders differ in different cultures? The findings. *Rethinking psychiatry*. Simon and Schuster.

19-Depression in Japan

Watters, Ethan. 2010. Chapter 4: The mega-marketing of depression in Japan. *Crazy like Us: The Globalization of the American Psyche*. Simon and Schuster.

Kirmayer, L. J. (2006). Beyond the 'new cross-cultural psychiatry': cultural biology, discursive psychology and the ironies of globalization. *Transcultural Psychiatry*, 43(1), 126-144.

20-Trauma

Watters, Ethan. 2010. Chapter 2: The wavew that brought PTSD to Sri Lanka. *Crazy like Us: The Globalization of the American Psyche*. Simon and Schuster.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of general psychiatry*, 52(12), 1048-1060.