

## CHEMICAL DEPENDENCY

PSYCH 545

SPRING 2020

DR. NORA NOEL

Class times: Tuesdays, 5:00 - 7:45 pm      Office Hours: M W 2 - 3

Class Meeting Room: TL2018

Office: TL3044; 962 - 4044; e-mail: NOELN@UNCW.EDU

### OVERVIEW

This course is designed as an advanced consideration of theories about why people develop Substance Use Disorders from a bio-psycho-social perspective. We will be reading and discussing ideas about how processes interact to produce misuse of psychoactive substances. The class format will be seminar style. There will be weekly readings, reaction papers and group discussions. The prerequisites for this course are Drugs and Behavior (Psych 245) or the equivalent, and admission to the graduate program.

### STUDENT LEARNING OUTCOMES

By the end of this course, students will have:

1. Read and discussed reviews and primary source material regarding a variety of the traditional and empirically-derived theories of "chemical dependency."
2. Used the knowledge, skills and abilities learned in this and other courses to understand the basic tenets of each theory, how they can be integrated or where they differ fundamentally, and how each can be applied to understanding the development of substance use, misuse and Substance Use Disorders.
3. Articulated their views, with supporting evidence based on research, both in a seminar setting and in a written format (on the midterm and final examinations).
4. Led a well-integrated and research-supported discussion of at least one of these theories in the seminar setting.
5. Communicated how these theories can be integrated into the assessment and treatment of clients with alcohol and drug problems.

### READINGS

The required readings for the course will be listed from week to week. They are a mixture of "classic" articles, recent reviews and recent research reports. I will give you an overview of the next week's topic at the end of each class, so that you can think about some of the important issues while you are reading. Each week there will be one or two central readings that everyone is assigned to read and summarize in a paragraph or two. Additionally, each person will be given a reading to summarize for the rest of the class, in a short power point or written format, so that we will have a variety of articles to share on that week's topic. In class, I will randomly choose a person to read his/her summary of the base article(s) and the other class members can chime in to supplement the material. After that, we will go over summaries of the other articles.

Additionally, each student will choose a week and lead the discussion of the readings for that week. You must read and integrate the material for a coherent presentation. This will also involve doing some extra reading for that week and preparing a presentation of at least one extra paper in a way that

facilitates discussion of the other work. Obviously, you will need to meet with me ahead of time. This is to give you the experience of leading a seminar discussion. Note that this does not relieve the other class members of their duty to read all the class material assigned before the class and come prepared to discuss it with you.

### SEMINAR PARTICIPATION

If you have not taken a seminar before, it might be helpful to know what to expect. A seminar is defined as, "a small group of students in college or graduate school engaged in original research or intensive study under the guidance of a professor." It is from the Latin word seminarium which means "seed plot" or a place where new ideas are grown. Originally, for the Romans and the Greeks, seminars were small informal "wine and cheese" gatherings of learned men (before affirmative action) to discuss important and new ideas. It gradually changed to refer to a class, but retained the idea of discussion, so, ironically, in this class we have a seminar to discuss wine (if not cheese).

Because this is a seminar, class attendance and participation are required. If you miss a class, I will have to deduct points from your participation grade. You cannot participate in a seminar that you do not attend. As a rule of thumb, students who miss two or more classes will lose a whole grade, for example, going from A to a B, or worse, a B to a C. Each week there will be at least one recent research paper among the readings. You should be able to discuss how the more theoretical papers relate to the research presented. These reactions will serve to promote discussion and focus our work each week. Be prepared. Your participation grade will be based, in part, on the quality of your in-class discussion. Note that you cannot "react" if you have not read and thought about the material before class so you might even want to prepare a reaction before each class.

Overview: In order to provide an understanding of substance use behaviors, a theory has to address four important questions: 1) Why do people in general use psychoactive substances?; 2) Why do some people use more than others?; 3) Why do some people become "dependent/ addicted/whatever" on a substance?; and 4) What can be done to alleviate this "dependence/ addiction/whatever"? You should think about how each reading answers these questions, and how effectively the reading answers the questions (e.g. do the authors have good data or other evidence to back up their hypotheses? Do they provide a good description or definition of the phenomenon they discuss? Is the theory plausible?)

Class Discussions: Examples of some discussion from past classes include: 1) How do 12-Step treatment approaches relate to Disease Models of alcohol and drug addiction? 2) Are all people with substance use disorders physically dependent on a substance? If not, how does one decide if they have a disorder? What are the important issues influencing this decision? Is there such a thing as psychological dependence without physical dependence? 3) Should drug laws be changed based on the actions or the consequences of the drugs? Should (some) drugs be banned? Should (some) drugs be openly available? 4) Can we predict the development of alcohol or other substance use disorder on the basis of genetic or personality factors? 5) How do Cultural factors, Ethnicity, Race, Gender, Age, Religion, Disability, and so on influence substance use? Does knowledge of this influence lead to stereotyping?

### GRADING

Your grade will be determined by your seminar participation including your reaction papers and participation in the class discussions (50 %), your performance on the midterm (20 %), and your performance on the final exam (30 %). Requirements for participation are discussed above. The midterm and the final will be essay exams, so be prepared to write. The final exam will be comprehensive for the

course.

## CLASS SCHEDULE AND READINGS

Week 1; January 14:

### Introduction

Nature of class (What is a seminar?)

How the class will be conducted

What will be covered in the class

Short assessment of your current knowledge

Week 2; January 21:

### Defining and Addressing The Problems of Substance (Ab)Use

Readings:

Bickel, W., Mueller, E. & Jarmolowicz, D. (2013) What is addiction? From McCrady, B. and Epstein, E. (Eds.) Addictions: A Comprehensive guidebook. New York: Oxford University press.

Carroll, K. & Miller, W. (2006) Defining and addressing the problem. From Miller, W. & Carroll, K. (eds.) Rethinking Substance Abuse: What the science knows and what we should do about it. New York: Guilford Press.

John, W., Zhu, H., Mannelli, P. Schwartz, R., Subramaniam, G. & Wu, L. (2018) Prevalence, patterns, and correlates of multiple substance use disorders among adult primary care patients. Drug and Alcohol Dependence, *187*, 79 - 87. <https://doi.org/10.1016/j.drugalcdep.2018.01.035>

Nutt, D., King, L. & Phillips, L.; Independent Scientific Committee on Drugs (2010) Drug harms in the UK: A multicriteria decision analysis. Lancet, *376*, 1558-1565. DOI:10.1016/S0140-6736(10)61462-6

Week 3; January 28:

### Some Examples of Very Negative Consequences of Substance Use

Readings:

Aquavita, S., Talks, A. & Fiser, K. (2017) Facilitators and barriers to cigarette smoking while pregnant for women with substance use disorders. Nicotine and Tobacco Research, *19*, 555 - 561. doi:10.1093/ntr/ntw268

Cafferky, B., Mendez, M., Anderson, J. & Stith, S. (2018) Substance use and intimate partner violence: A meta-analytic review. Psychology of Violence, *8*, 110 - 131. <http://dx.doi.org/10.1037/vio0000074>

Coghlan, M. & MacDonald, S. (2010) The role of substance use and psychosocial characteristics in explaining unintentional injuries. Accident Analysis and Prevention, *42*, 476-479. doi:10.1016/j.aap.2009.09.010

Kidd, J., Tross, S. Pavlicova, M., Hu, M., Campbell, A. & Nunes, E. (2017) Sociodemographic and substance use disorder determinants of HIV sexual risk behavior in men and women in outpatient drug treatment in the NIDA national drug abuse treatment clinical trials network. Substance Use and Misuse, *52*, 858 - 875. <https://doi.org/10.1080/10826084.2016.1264971>

Unsworth, D. & Mathias, J. (2017) Traumatic brain injury and alcohol/substance abuse: A Bayesian meta-analysis comparing the outcomes of people with and without a history of abuse, Journal of Clinical and Experimental Neuropsychology, *39*, 547-562, DOI: 10.1080/13803395.2016.1248812

Week 4; February 4:

### Why Do People (Ab)Use Psychoactive Substances? "Traditional" Formulations and Models

Readings:

- Crocq, M. (2007) Historical and cultural aspects of man's relationship with addictive drugs. Dialogues in Clinical Neuroscience, 9, 355-361.
- Heather, N. (2017) Q: Is addiction a brain disease or a moral failing? A: Neither. Neuroethics, 10, 115 - 124. DOI 10.1007/s12152-016-9289-0
- Humphreys, K. & Gifford, E. (2006) Religion, spirituality and the troublesome use of substances. From Miller, W. & Carroll, K. (Eds.) Rethinking Substance Abuse. New York: Guilford Press.
- Jellinek, E.M. (1961) The Disease Concept of Alcoholism. New Brunswick, NJ: Rutgers Press. Read Chapter III: Formulations of the disease nature of alcoholism.
- Wiens, T. & Walker, L. (2015) The chronic disease concept of addiction: Helpful or harmful? Addiction Research and Theory, 23, 309 - 321. DOI: 10.3109/16066359.2014.987760

Week 5; February 11:

Why Do People (Ab)Use Psychoactive Substances? Neuroscience and Genetics

Readings:

- Ducci, F. & Goldman, D. (2008) Genetic approaches to addiction: Genes and alcohol. Addiction, 103, 1414-1428. doi:10.1111/j.1360-0443.2008.02203.x.
- Koob, G. & Schulkin, J. (2019) Addiction and stress: An allostatic view. Neuroscience and Biobehavioral Reviews, <https://doi.org/10.1016/j.neubiorev.2018.09.008>.
- Newlin, D. & Strubler, K. (2007) The habitual brain: an "adapted habit" theory of substance use disorders. Substance Use and Misuse, 42, 503 - 526.
- Perreau-Lenz, S. & Spanagel, R. (2015) Clock genes X stress X reward interactions in alcohol and substance use disorders. Alcohol, 49, 351 - 357.
- Ron, D. & Berger, A. (2018) Targeting the intracellular signaling "STOP" and "GO" pathways for the treatment of alcohol use disorders. Psychopharmacology, 235, 1727-1743. <https://doi.org/10.1007/s00213-018-4882-z>

Week 6; February 18:

Why Do People (Ab)Use Psychoactive Substances? Developmental Hypotheses

Readings:

- Brown, S. et al. (2009) Underage alcohol use: Summary of developmental processes and mechanisms: Ages 16 - 20. Alcohol Research and Health, 32, 41 - 52.
- Hesselbrock, V. & Hesselbrock, M. (2006) Developmental perspectives on the risk for developing substance abuse problems. From Miller, W. & Carroll, K. (eds.) Rethinking Substance Abuse: What the science knows and what we should do about it. New York: Guilford Press.
- Levesque, A. & Nunes, E. (2016) Recognizing addiction in older patients In Sullivan, M. & Levin, F. (Eds.) Addiction in the older patient. New York: Oxford University Press, 9 - 36.
- Richmond-Rakerd, L., Slutske, W. & Wood, P. (2017) Age of initiation and substance use progression: A multivariate latent growth analysis. Psychology of Addictive Behaviors, 31, 664-675.

Week 7; February 25:

Why Do People (Ab)Use Psychoactive Substances? Learning Theory Approaches

Readings:

- Bickel, W., Johnson, M., Koffarnus, M. MacKillop, J. & Murphy, J. (2014) The behavioral economics of substance use disorders: Reinforcement pathologies and their repair. Annual Review of Clinical Psychology, 10, 641 - 677.
- Higgins, S. & Heil, S. (2004) Principles of learning in the study and treatment of substance abuse. In Galanter, M. & Kleber, H. (eds.) The American Psychiatric Press Textbook of Substance Abuse

Treatment, 3<sup>rd</sup> edition. Arlington, VA: American Psychiatric Association Press.

Hogarth, L. (2012) Goal-directed and transfer-cue-elicited drug-seeking are dissociated by pharmacotherapy: Evidence for independent additive controllers. Journal of Experimental Psychology: Animal Behavior Processes, 38, 266-278.

Rogers, R. et al. (2008) Abstinence-contingent reinforcement and engagement in non-drug-related activities among illicit drug abusers. Psychology of Addictive Behaviors, 22, 544 - 550

Teuscher, U. & Mitchell, S. (2011) Relation between time perspective and delay discounting: A literature review. The Psychological Record, 61, 613 - 632.

Week 8: March 3: **Midterm**

Weeks 9 & 10: March 17 and March 24

Why Do People (Ab)Use Psychoactive Substances? Cognitive and Social Learning Theories

Readings:

Baumeister, R. & Vonasch, A. (2015) Uses of self-regulation to facilitate and restrain addictive behavior. Addictive Behaviors, 44, 3 - 8.

Clark, H., Ringwalt, C. & Shamblin, S. (2011) Predicting adolescent substance use: The effects of depressed mood and positive expectancies. Addictive Behaviors, 36, 488 - 493.

Maisto, S., Xie, F., Witkiewitz, K., Ewart, C., Connors, G., Zhu, H., Elder, G., Ditmar, M. & Chow, S. (2017), How chronic self-regulatory stress, poor anger regulation, and momentary affect undermine treatment for alcohol use disorder: Integrating social action theory with the dynamic model of relapse. Journal of Social and Clinical Psychology, 36, 238 -263.

Spada, M. & Wells, A. (2009) A metacognitive model of problem drinking. Clinical Psychology and Psychotherapy, 16, 383 - 393.

Week 11: March 31

Why Do People (Ab)Use Psychoactive Substances? Family Issues

Readings:

McCrary, B. (2004) To have but one true friend: Implications for practice of research on alcohol use disorders and social networks. Psychology of Addictive Behaviors, 18, 113 - 121.

Hussong, A., Cai, L., Curran, P., Flora, D., Chassin, L. & Zucker, R. (2008) Disaggregating the distal, proximal, and time-varying effects of parent alcoholism on children's internalizing symptoms. Journal of Abnormal Child Psychology, 36, 335 - 346.

Patock-Peckham, J., Walters, K., Mehok, L., Leeman, R., Ruof, A. & Moses, J. (2019) The direct and indirect influences of parenting: The facets of time-perspective and impaired control along the alcohol-related problems pathway. Substance Use and Misuse, (in press, 2018)

Velleman, R., Templeton, L. & Copello, A. (2005) The role of the family in preventing and intervening with substance use and misuse: A comprehensive review of family interventions, with a focus on young people. Drug and Alcohol Review, 24, 93 - 109.

Week 11: April 7

Ethnic, Cultural and Social Issues Associated with Psychoactive Substance Use

Readings:

Beauvais, F. (2014) Substance abuse. In Leong, F. (Ed.) APA Handbook of Multicultural Psychology: Vol. 2. Applications and Training. Washington, DC: American Psychological Association.

Dermody, S. (2018) Risk of polysubstance use among sexual minority and heterosexual youth. Drug and Alcohol Dependence, 192, 38 - 44.

- Gone, J. & Calf Looking, P. (2011) American Indian culture as substance abuse treatment: Pursuing evidence for a local intervention. Journal of Psychoactive Drugs, 29, 291 - 296.
- Kuntsche, E., Sznitman, S. & Kuntsche, S. (2017) Alcohol and other substance use in a cross-cultural perspective. Drug and Alcohol Review, 36, 717 - 720.
- McKnight, C. et al. (2017) Perceived discrimination among racial and ethnic minority drug users and the association with health care utilization. Journal of Ethnicity in Substance Abuse, 16, 404-419.
- Room, R. (2006) Taking account of cultural and societal influences on substance use diagnoses and criteria. Addiction, 101 (Suppl. 1), 31-39.

Weeks 12 & 13: April 14 & 22

Paths to Recovery: Treatment, Self-Help Groups & Natural Recovery

Readings:

- Al-Otaiba, Z., Worden, B., McCrady, B. & Epstein, E. (2008) Accounting for self-selected drinking goals in the assessment of treatment outcome. Psychology of Addictive Behaviors, 22, 439 - 443.
- Borkman, T., Kaskutas, L. & Owen, P. (2007) Contrasting and converging philosophies of three models of alcohol/other drugs treatment. Alcoholism Treatment Quarterly, 25, 21 - 38.
- Haberle, B., Conway, S., Valentine, P., Evans, A., White, W. & Davidson, L. (2014) The recovery community center: A new model for volunteer peer support to promote recovery. Journal of Groups in Addiction & Recovery, 9, 257 - 270.
- Kline-Simon, A., Falk, D., Litten, R., Mertens, J., Fertig, J., Ryan, M. & Weisner, C. (2013) Posttreatment low-risk drinking as a predictor of future drinking and problem outcomes among individuals with alcohol use disorders. Alcoholism: Clinical and Experimental Research, 37, 373 - 379.
- Tatarsky, A. & Marlatt, G.A. (2010) State of the art in harm reduction psychotherapy: An emerging treatment for substance misuse. Journal of Clinical Psychology: In session, 66, 117 - 122.
- Tucker, J. & Simpson, C. (2011) The recovery spectrum: From self-change to seeking treatment. Alcohol Research & Health 33, 371 - 379.
- White, W. (2010) Nonclinical addiction recovery support services: History, rationale, models, potentials, and pitfalls. Alcoholism Treatment Quarterly, 28, 256 - 272.
- Witbrodt, J., Kaskutas, L. & Grella, C. (2015) How do recovery definitions distinguish recovering individuals? Five typologies. Drug and Alcohol Dependence, 148, 109 - 117.

Week 14: April 28

Evidence-Based Treatment (What does that mean?)

Readings

National Institute on Alcohol Abuse and Alcoholism (NIAAA):

<https://pubs.niaaa.nih.gov/publications/Treatment/treatment.htm>;

<https://alcoholtreatment.niaaa.nih.gov/about-niaaa-alcohol-treatment-navigator>

- Kelly, T., Daley, D. & Douaihy, A. (2012) Treatment of substance-abusing patients with comorbid psychiatric disorders. Addictive Behaviors, 37, 11 - 24.
- Magill, M., Kiluk, B., McCrady, B., Tonigan, S. & Longabaugh, R. (2015) Active ingredients of treatment and client mechanisms of change in behavioral treatments of alcohol use disorders: Progress 10 years later. Alcoholism: Clinical and Experimental Research, 39, 1852 - 1862.
- McLellan, T. (2006) What we need is a system: Creating a responsive and effective substance abuse treatment system. From Miller, W. & Carroll, K. (eds.) Rethinking Substance Abuse: What the science knows and what we should do about it. New York: Guilford Press.

Meyers, R., Roozin, H. & Smith, J. (2011) The community reinforcement approach: Update on the evidence. Alcohol Research & Health, 33, 380 - 388.

Miller, W. & Carroll, K. (2006) Drawing the science together: Ten principles, ten recommendations. From Miller, W. & Carroll, K. (eds.) Rethinking Substance Abuse: What the science knows and what we should do about it. New York: Guilford Press.

Exam Week: FINAL EXAM