

UBC SCHOOL OF POPULATION AND PUBLIC HEALTH

SPPH 550(3): Public Health Approaches to Substance Use and Addictions

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Purpose:

Public health strategies aimed at preventing and treating problematic substance use are a defining point of wellness for individuals and societies. Substance use and addictions is inherently a multi-disciplinary field. Successful public health approaches will likely be those grounded on this premise. Our understanding of this public health issue requires considering individual and social environmental factors as they contribute to develop, prevent, treat and manage substance use and its related problems.

Problematic substance use description varies among individuals, disciplines, communities and time periods. For example, in the past addictions were seen as an indicator of lack of will and determination, while it is now considered a chronic relapsing disease that affects millions of people in the world. However, among a community these two concepts will co-exist and this will be reflected in the public policies. Fascinatingly, regardless of scientific evidence, there is a vast irrational component in our strategies to prevent and respond to substance use and related problems.

The general aim of this course is to engage students in a critical examination of public health strategies regarding substance use and related problems, in the context of a multidisciplinary approach.

Learning Objectives

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

1. Critically analyze examples of public health responses aimed at preventing, treating and managing substance use and related problems.
2. Critique and appraise research and evidence-based approaches in this field.
3. Acknowledge the diverse groups affected by substance use problems and think about person-centered approaches.
4. Recognize the importance of a continued open public discussion around prevention, treatment and policy, translating the knowledge from the scientific evidence.
5. Communicate research or proposals on addictions and substance use considering the personal, social, scientific and health policy context where that research or proposal occurs.
6. Examine personal bias and gain some insight on others' bias when facing substance related issues.

Course Structure:

This class is built upon the experiences, backgrounds and interests of the students, which the instructional team moderates and frames. This is not a lecture-based class. Current events in policy also impact the focus of the class. Thus, each year the class' topics vary, as well as the depth in which they are explored. Class discussion is a core element in this course; the introduction of the conceptual framework will be mostly through moderation of the class (e.g., students' discussion and presentations), short lectures when pertinent, and invited presenters when possible (or videos). Students will present and participate in group activities and are encouraged to come prepared (e.g., self-selected readings, experiences, reflections, etc.), according to their background and interests. The course is scheduled weekly on Tuesdays from 9 am to 12 pm in the fall term, alternating synchronous and asynchronous formats.

Course Assessment Methods:

The aim of the assessments is to help the student to organize new information, integrate it with previous knowledge and provide a critical appraisal regarding public health approaches to substance use. Therefore, ongoing assessment is an integral part of learning throughout this course, through the following activities and assignments:

- a) Class engagement: To recognize the importance of a continued open public discussion in this field, it is important to be able to engage in such discussions. Small group activities to work on specific topics, feedback on oral presentations and final commentary assignment, individual collaboration to the overall discussion. Because of the nature of the topics, it is very important to consider many variables implicated; group discussions are an important tool to achieve that goal.
- b) Oral presentation: Students will select a study, a topic or situation that poses a Public Health challenge (current or former) related to substance use to present to the class. The student will present the main message of the selected subject matter and critically discuss it considering (where applicable): target population, aims, methodology, outcomes, impact and policy. It is encouraged that students incorporate their background (e.g., nursing, statistics, etc.) on the analysis of the selected topic.
- c) Written assignment: Students will select a topic on substance use and write an evidence-based commentary considering: what is known about the topic, what is an unknown and future directions. The paper should be no more than 500-700 words (excluding references and title). The discussion must be evidence-based with proper citations and references. Creativity and originality combined with realistic and critical appraisal need to be core elements of the paper. Alternatively, students can write an op-ed.

Course Grading Criteria:

This is an interdisciplinary course, therefore diversity of interpretation and points of views are welcomed. Performance expectations are summarized in the table below. Letter grade allocations will follow those listed in the UBC Academic Calendar¹.

<i>Criterion</i>	<i>Outstanding</i>	<i>Good Quality</i>	<i>Adequate</i>
Class engagement 40%	Speaks up. Arguments supported by evidence. Keeps conversation flowing. Relates discussion to the context, elaborating. Always respectful and mindful of the words chosen to express ideas. Very creative and convincing with argument presented in a positive way.	Speaks up, variably. Arguments mostly supported by evidence. Contributes occasionally to the conversation. Relates discussion to the context. Occasionally respectful and mindful of words chosen to express ideas. Occasionally creative and positively convincing in making arguments.	Speaks if asked. Arguments somehow supported by evidence. Intervention needed for conversation flow. Discussion is somehow related to the context. Rarely respectful and mindful of words chosen to express ideas. Rarely creative and positively convincing in making arguments.
Oral presentation 30%	Topic is highly relevant to the course and personal background. Presentation content, pace and style are engaging. Content is accurate. Take home message is concise and clear throughout the presentation. Discussion is interactive with audience. The audience ends with a clear understanding of the point of the presentation.	Topic is relevant to the course and personal background. Presentation content, pace and style are fairly engaging. Content is mostly accurate. Take home message is clear. Discussion is somehow interactive with audience. The audience ends with a fairly clear understanding of the point of the presentation.	Topic is somehow relevant to the course; personal background not explicit. Audience has difficulties engaging. Content needs more work. Take home message is clear but only in the beginning. Responses could be more conversational. The audience ends with a slight understanding of the point of the presentation.
Written assignment	Excellent a) summary of the topic to be commented on, with proper references; b) identification of the pros and cons and c)	Very good a) summary of the topic to be commented on, with proper references; b) identification of the pros and	Good a) summary of the topic to be commented on, with proper references; b) identification of the pros and

¹ Visit the Graduate Studies website for further information on grading practices: <https://www.grad.ubc.ca/faculty-staff/policies-procedures/grading-practices>

30%	recommendation of future directions. Discussion is evidence-based. Very good combination of originality with critical appraisal. Excellent flow, reads very well, keeps reader engaged.	cons and c) recommendation of future directions. Discussion is evidence-based. Very good combination of originality with critical appraisal. Good flow, reads well, keeps reader engaged.	cons and c) recommendation of future directions. Discussion is evidence-based. Good combination of originality with critical appraisal. Reads well but the flow could be improved to keep reader engaged.
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Class Themes:

Each year students bring a breadth of topics, experiences and interests to the class. There are also overarching and recurrent themes that the instructional team will use to frame and consider these topics (when pertinent). These themes may be organized as follows:

Introduction: Public Health approaches to substance use and addictions, an inter and multidisciplinary approach

- Presentation of the course contents and class participants.
- Discussion of academic, personal and social backgrounds and beliefs around drug use and addiction as a starting point towards building evidence-based conclusions.
- Discussion of concepts 'abuse, dependence, addiction, recreational use'.
- Defining drug use, drug abuse, substance dependence and addictive behaviours.
- Critically reflect on assumptions and potential bias and stigma on past and present terminology.

Substance use and addictive behaviours in numbers: Overview of the nature and dimension of the phenomenon.

- Presentation and discussion of global and local data on prevalence, incidence and patterns of substance use and addictive behaviours.
- Examine and reflect on the methodologies used to obtain data on substance use and addictive behaviours and the implications.

Impact of adverse life events on substance use and addictive behaviours

- Examine the prevalence of life stressors and victimization among substance using individuals and their impact on the onset, use and relapse of addictive behaviours.
- Guided questions to reflect on why these stressors could have such a significant impact and how public health can intersect with these profound issues.

Harm reduction.

- History and definition of Harm Reduction strategies.

- Harm reduction interventions.
- Evidence supporting Harm Reduction strategies.

Policy and Law

- Acquire a global understanding of policies around drug use and addictive behaviours to control, regulate, prohibit and penalize, and the impact of those policies. Implications in the Canadian context.
- Identify implications of these policies for public health approaches to addictions and substance use related harms.

Treatment.

- What is treatment? Evidence-based treatments for substance dependency and addictive behaviours.
- Treatment outcomes evaluations: when is a treatment 'working'?

People with addiction problems in prison: a public health intervention opportunity.

- Overview of prison systems.
- Profile of people with addiction problems in prison.
- Prevention, treatment and harm reduction services for people in prisons and in reintegration services for persons on release from prisons.

Prevention

- Definitions and approaches to prevention in substance use.
- Protective and risk factors for the onset of drug use.
- Critically analyze the evidence of effectiveness of prevention programs.

Problems associated with substance use and addictive behaviours.

- Identify the general areas where adverse outcomes associated with addictive behaviours and substance use can be found for individuals and for societies.
- Examination of the complex relationship between adverse outcomes and addictive behaviours.

Vulnerability to substance use and addictive behaviors

- Aetiology of addictive behaviours: models that explain substance dependence.
- Substance use among young people: why vulnerability to substance use and addictive behaviors varies with age?
- Culturally-adequate public health approaches to substance use and addictions.

Closing class

□ The final wrap-up will involve an evaluation of the course and reflection and discussion of the teaching and learning process surrounding the course.

Suggested readings (by theme):

Please note that readings are intended to be self-selected based on what is of interest to the students. The instructional team is always available to direct students to other specific resources.

Introduction

Rehm J, Marmet S, Anderson P, et al. Defining Substance Use Disorders: Do We Really Need More Than Heavy Use? *Alcohol and alcoholism* 2013;48(6):633-40.

Room R. Alcohol and drug disorders in the International Classification of Diseases: a shifting kaleidoscope. *Drug and alcohol review* 1998; 17(3): 305-17.

Thombs, DL.& Osborne, C. (2013) *Introduction to Addictive Behaviors, Fourth Edition* (Guilford Substance Abuse Series). Chapter 1: Conceptualization of addictive behaviours.

Bourgois, P. (2002). Anthropology and epidemiology on drugs: The challenges of cross-methodological and theoretical dialogue. *International Journal of Drug Policy*, 13(4), 259-269.

Savage, J. (2006). Ethnographic evidence: The value of applied ethnography in healthcare. *Journal of Research in Nursing*, 11(5), 383-393.

Neaigus, A., Gyarmathy, V. A., Miller, M., Frajzyngier, V. M., Friedman, S. R., & Des Jarlais, D. C. (2006). Transitions to injecting drug use among noninjecting heroin users: Social network influence and individual susceptibility. *Journal of Acquired Immune Deficiency Syndromes* (1999), 41(4), 493-503.

In numbers

Ksir, C. & Hart, C.L. (2016). Correlation still does not imply causation. *Lancet Psychiatry*. 2016 May;3(5):401.

Degenhardt et al., (2013). *Global burden of disease attributable to illicit drug use and dependence: findings from the Global Burden of Disease Study 2010*. *Lancet*

Buxton, J. (2007). *Vancouver site report for the Canadian Community Epidemiology Network on Drug Use*

(CCENDU). 2007. Canadian Centre on Substance Abuse.

Canadian Addiction Survey (CAS) & Canadian Alcohol and Drug Use Monitoring Survey (CADUMS). Reports 2004 & 2008.

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Drug report 2012.

United Nations Office on Drugs and Crime (UNODC). World Drug Report 2009.

Drug Policy

Scholten, W. & Henningfield, J.E. (2016). Negative outcomes of unbalanced opioid policy supported by clinicians, politicians, and the media, *Journal of Pain & Palliative Care Pharmacotherapy*, 30:1, 4-12.

MacPherson, D. (2001). A Framework for action - A Four-Pillar Approach to Drug Problems in Vancouver: Prevention, treatment, enforcement and harm reduction. City of Vancouver.

The Beckley Foundation Global Cannabis Commission Report. Oxford, 2008.

Nutt D (2015) Illegal Drugs Laws: Clearing a 50-Year-Old Obstacle to Research. *PLoS Biol* 13(1): e1002047.

Buxton J A, Haden M and Mathias R G The Control and Regulation of Currently Illegal Drugs. In: Kris Heggenhougen and Stella Quah, editors *International Encyclopedia of Public Health*, Vol 2. San Diego: Academic Press; 2008. pp. 7-16.

Haden M. A Drug Educator's Apology [Video]. Vancouver, Canada [updated April 16 2012]. Available from: <http://drugpolicy.ca/2012/04/markhaden/>.

Associated Harms

van Amsterdam J, van den Brink W. Ranking of drugs: a more balanced risk-assessment. *Lancet* 2010; 376(9752): 1524-5.

van Amsterdam J, Opperhuizen A, Koeter M, van den Brink W. Ranking the harm of alcohol, tobacco and illicit drugs for the individual and the population. *European addiction research* 2010; 16(4): 202-7.

Morgan CJ, Muetzelfeldt L, Muetzelfeldt M, Nutt DJ, Curran HV. Harms associated with psychoactive substances: findings of the UK National Drug Survey. *J Psychopharmacol* 2010; 24(2): 147-53.

Nutt DJ, King LA, Phillips LD, Independent Scientific Committee on D. Drug harms in the UK: a multicriteria decision analysis. *Lancet* 2010; 376(9752): 1558-65.

Kelly, B. C., & Parsons, J. T. (2013). Prescription drug misuse and sexual risk taking among HIV-negative MSM. *AIDS and Behavior*, 17(3), 926-930. doi:10.1007/s10461-011-9993-z

Brian C Kelly, Hubert Izienicki, David S Bimbi, & Jeffrey T Parsons. (2011). The intersection of mutual partner violence and substance use among urban gays, lesbians, and bisexuals. *Deviant Behavior*, 32(5), 379-404.

Parsons, J. T., & Starks, T. J. (2014). Drug use and sexual arrangements among gay couples: Frequency, interdependence, and associations with sexual risk. *Archives of Sexual Behavior*, 43(1), 89-98.

doi:10.1007/s10508-013-0237-3

Kelly, B. C., Wells, B. E., LeClair, A., Tracy, D., Parsons, J. T., & Golub, S. A. (2013). Prescription drug misuse among young adults: Looking across youth cultures. *Drug and Alcohol Review, 32*(3), 288-294. doi:10.1111/dar.12016

Parsons, J. T., Grov, C., & Kelly, B. C. (2009). Club drug use and dependence among young adults recruited through time-space sampling. *Public Health Reports (1974-), 124*(2), 246-254.

Werb, D., Kerr, T., Fast, D., Qi, J., Montaner, J. S. G., & Wood, E. (2010). Drug-related risks among street youth in two neighborhoods in a canadian setting. *Health and Place, 16*(5), 1061-1067. doi:10.1016/j.healthplace.2010.06.009

Prevention

Faggiano, F., Vigna-Taglianti, F. D., Versino, E., Zambon, A., Borraccino, A., & Lemma, P. (2005). School-based prevention for illicit drugs' use. *Cochrane Database Syst Rev, (2)*, CD003020.

Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: implications for substance abuse prevention. *Psychological Bulletin, 112*(1), 64-105.

Hawkins, J. D., Oesterle, S., Brown, E. C., Arthur, M. W., Abbott, R. D., Fagan, A. A. et al. (2009). Results of a type 2 translational research trial to prevent adolescent drug use and delinquency: a test of Communities That Care. *Arch Pediatr Adolesc Med, 163*(9), 789-98.

Thomas, R., & Perera, R. (2006). School-based programmes for preventing smoking. *Cochrane Database Syst Rev, 3*, CD001293.

Canadian Centre on Substance Abuse. (2010). Building on our strengths: Canadian standards for school-based youth substance abuse prevention (version 2.0). Ottawa, ON: Canadian Centre on Substance Abuse.

Drug Treatment

Amato, L., Minozzi, S., Davoli, M., Vecchi, S., Ferri, M., & Mayet, S. (2004). Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence. *Cochrane Database Syst Rev, (4)*, CD004147.

De Jong, C. A., Roozen, H. G., van Rossum, L. G., Krabbe, P. F., & Kerkhof, A. J. (2007). High abstinence rates in heroin addicts by a new comprehensive treatment approach. *Am J Addict, 16*(2), 124-30.

Van den Brink, W., & Haasen, C. (2006). Evidenced-based treatment of opioid-dependent patients. *Can J Psychiatry, 51*(10), 635-46.

Jarvis, T. J., & Copeland, J. (1997). Child sexual abuse as a predictor of psychiatric co-morbidity and its implications for drug and alcohol treatment. *Drug and Alcohol Dependence, 49*(1), 61-69. doi:10.1016/S0376-8716(97)00139-7

Harm reduction

Cook, C. & Kanaef, N. (2008). The Global State of Harm Reduction 2008: Mapping the response to drug-related HIV and hepatitis C epidemics. International Harm Reduction Association, United Kingdom.

International Harm Reduction Association (2010). What is Harm Reduction? A position statement from the International Harm Reduction Association.

Ritter, A., & Cameron, J. (2006). A review of the efficacy and effectiveness of harm reduction strategies for alcohol, tobacco and illicit drugs. *Drug Alcohol Rev*, 25(6), 611-24.

British Columbia Centre for Disease Control and the National Film Board of Canada (Producer), & Nettie Wild (Director). (2008). *Bevel Up: Drugs, Users & Outreach Nursing*. (Available from National Film Board of Canada, Vancouver, British Columbia).

Prison

Merrall, E. L., Kariminia, A., Binswanger, I. A., Hobbs, M. S., Farrell, M., Marsden, J. et al. (2010). Meta-analysis of drug-related deaths soon after release from prison. *Addiction*, 105(9), 1545-54.

Larney, S. (2010). Does opioid substitution treatment in prisons reduce injecting-related HIV risk behaviours? A systematic review. *Addiction*, 105(2), 216-23.

Stöver, H. & Weilandt, C. (2007). Drug use and drug services in prisons, in Health in prisons: a WHO guide to the essentials in prison health, WHO Regional Office for Europe, Copenhagen.

Vulnerability to Substance Use and Addiction

Grant, J. E., Brewer, J. A., & Potenza, M. N. (2006). The neurobiology of substance and behavioral addictions. *CNS Spectr*, 11(12), 924-30.

Agrawal, A., & Lynskey, M. T. (2008). Are there genetic influences on addiction: evidence from family, adoption and twin studies. *Addiction*, 103(7), 1069-81.

Chen, C. Y., Storr, C. L., & Anthony, J. C. (2009). Early-onset drug use and risk for drug dependence problems. *Addict Behav*, 34(3), 319-22.

Doremus-Fitzwater, T. L., Varlinskaya, E. I., & Spear, L. P. (2010). Motivational systems in adolescence: possible implications for age differences in substance abuse and other risk-taking behaviors. *Brain Cogn*, 72(1), 114-23.

Nyhlén, A., Fridell, M., Bäckström, M., Hesse, M., Krantz, P., Department of Clinical Sciences, Malmö, . . . Medicin. (2011). Substance abuse and psychiatric co-morbidity as predictors of premature mortality in Swedish drug abusers: A prospective longitudinal study 1970-2006. *BMC Psychiatry*, 11(1), 122-122.

Hurst, M. A., Shy, K. E., Liskow, B. I., & Stern, S. L. (1989). Psychiatric co-morbidity in patients with drug and alcohol dependence in a private hospital setting. *Biological Psychiatry*, 25(7), A127-A128.

Steffanie A Strathdee, Timothy B Hallett, Natalia Bobrova, Tim Rhodes, Robert Booth, Reychad Abdool, & Catherine A Hankins. (2010). HIV in people who use drugs 1: HIV and risk environment for injecting drug users: The past, present, and future. *The Lancet*, 376(9737), 268.

Life events

Cleck, J. N., & Blendy, J. A. (2008). Making a bad thing worse: adverse effects of stress on drug addiction. *J Clin Invest*, 118(2), 454-61.

Andersen, S. L., & Teicher, M. H. (2009). Desperately driven and no brakes: developmental stress exposure and subsequent risk for substance abuse. *Neurosci Biobehav Rev*, 33(4), 516-24.

Cohen, J. A., Mannarino, A. P., Zhitova, A. C., & Capone, M. E. (2003). Treating child abuse-related posttraumatic stress and comorbid substance abuse in adolescents. *Child Abuse Negl*, 27(12), 1345-65.

McKay, J. R., Franklin, T. R., Patapis, N., & Lynch, K. G. (2006). Conceptual, methodological, and analytical issues in the study of relapse. *Clin Psychol Rev*, 26(2), 109-27.

Wu, N. S., Schairer, L. C., Dellor, E., & Grella, C. (2010). Childhood trauma and health outcomes in adults with comorbid substance abuse and mental health disorders. *Addict Behav*, 35(1), 68-71.

Turner, R. J., & Lloyd, D. A. (1995). Lifetime traumas and mental health: The significance of cumulative adversity. *Journal of Health and Social Behavior*, 36(4), 360-376.

Lifetime cumulative adversity, mental health and the risk of becoming a smoker. (2006). *Health*, 10(1), 95-112.

Turner, R. J., Wheaton, B., & Lloyd, D. A. (1995). The epidemiology of social stress. *American Sociological Review*, 60(1), 104-125.

Kandel, Denise B. (Denise Bystry), & MyiLibrary. (2002). Stages and pathways of drug involvement: Examining the gateway hypothesis. Cambridge, UK: Cambridge University Press.

Suggested Texts:

Ksir, C., Hart, C., "Drugs, Society & Human Behavior", McGraw Hill, 2013.

Thombs, D., Osborn, C., "Introduction to Addictive Behaviors", Fourth Edition (Guilford Substance Abuse Series), 2013.