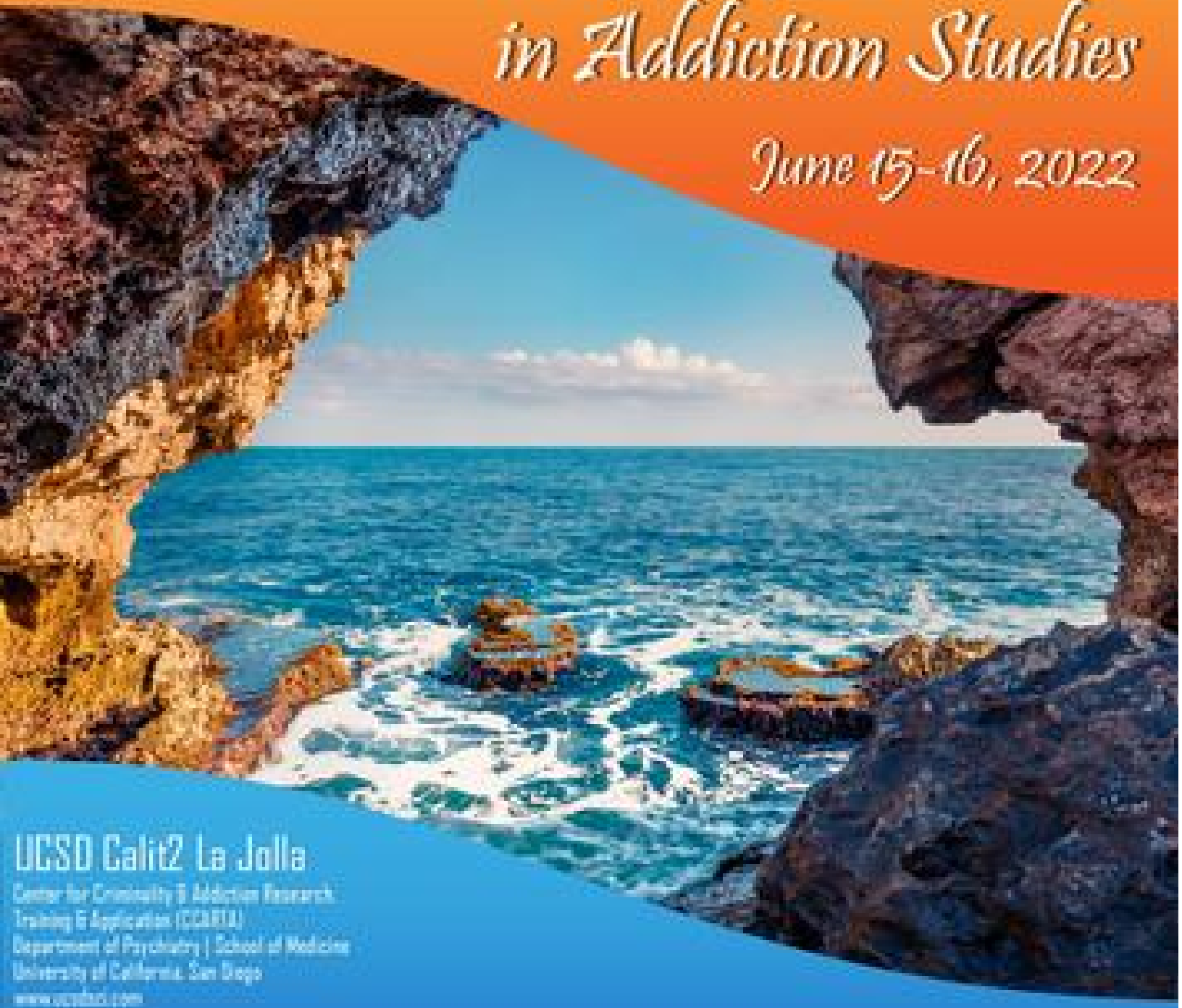
51st Summer Clinical Institute in Addiction Studies

June 15-16, 2022



UCSD Calit2 La Jolla

Center for Community & Addiction Research, Training & Application (CCARTA)
Department of Psychiatry | School of Medicine
University of California, San Diego
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CENTER FOR CRIMINALITY & ADDICTION RESEARCH, TRAINING & APPLICATION

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June 15, 2022

Dear Colleagues and Friends:

I want to welcome you to the 51st UCSD Summer Clinical Institute in Addiction Studies. We are excited to host our program streaming and in-person! We are delighted that you decided to join us.

SCI 2022 is an opportunity for you all to learn from leading experts in substance use disorders worldwide. Please help us by sharing your ideas with our staff in the comments section of the daily evaluations.

We hope that you will be able to implement the knowledge and skills that you will have gained. However, most importantly, thank you for striving to learn and implement the most current science to benefit our patients. I want to thank my UCSD staff, the Qualcomm Institute - Calit2 UCSD production team, and the Scaife Family Foundation for supporting us

Good luck, take good care of yourself and each other.

Igor Koutsenok, MD, MS
Professor of Psychiatry
Director, Center for Criminality & Addiction Research, Training & Application
Director, International Addiction Technology Transfer Center - Ukraine
Co-Director, International Addiction Technology Transfer Center - South East Asia
Vice President, International Consortium of Universities for Drug Demand Reduction

Acknowledgments

We would like to thank the following people who helped make our 51st Annual Summer Clinical Institute in Addiction Studies a success:

California Institute for Telecommunications and Information Technology
The Scaife Family Foundation

The SCI 2022 Faculty

Christopher KM Blazes, MD, Oregon Health & Science University
Geoffrey Bork, LCSW UC San Diego, Division of Extended Studies
Thom Browne, Jr., MA, Colombo Plan
Zafiris J. Daskalakis, MD, Ph.D., UCSD
Janene DelMundo, CDCR
Thomas Dooley, MFA, Institute for Empathy and Compassion, UCSD
Gita Mehta, MD, Institute for Empathy and Compassion, UCSD
Mateus Gola, Ph.D., UCSD
Lisa Heintz, CDCR
Cary Hopkins Eyles, MA, CAP, ICUDDR
Renee Kanan, MD, MPH, CDCR
Donna Kalauokalani, MD, MPH
Andrew Kurtz, LMFT, Pacific Mental Health Awareness Training, UCLA
Integrated Substance Abuse Programs
Carla Marienfeld, MD, DFAPA, FASAM, UCSD
Marc Schuckit, MD, UCSD

UCSD CCARTA Staff

David A. Deitch, PhD, Emeritus Professor of Clinical Psychiatry, CCARTA Founder
Igor Koutsenok, MD, MS, CCARTA Director
Norman Jackson, Ph.D., Candidate, MS, Project Manager
Tracy Wilson, Fiscal Manager
Helena Serrano, Cal State Fullerton Intern

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Agenda at-a-Glance

	WEDNESDAY, JUNE 15, 2022	THURSDAY, JUNE 16, 2022
8:15	**Welcome and Overview** — Zafiris J. Daskalakis, MD, PhD	**Welcome and Review of Day One** — Igor Koutsenok, MD, MS
8:30-10:00	**Blending Addiction Treatment with Criminal Justice Environment - How to Make it Work?** – Igor Koutsenok, MD, MS	**CDCR Integrated Substance Use Disorder Treatment Panel** – Renee Kanan, MD, Deputy Director Medical Services, California Correctional Health Care Services (CCHCS), Lisa Heintz, Director, Legislation and Special Projects, CCHCS, Donna Kalauokalani, MD, MPH Deputy Medical Executive, Medical Services, Janene DelMundo, ISUDT Project Director
10:00	**Break**	**Break**
10:15-11:00	**Internet Drugs: Kratom, Phenibut, Tianeptine** – Christopher KM Blazes, MD, Oregon Health & Science University	**The International Consortium of Universities on Drug Demand Reduction – Opportunities for Improvement of Education in Addiction** – Cary Hopkins Eyles, MA, CAP, ICUDDR
11:00-11:45	**Confidentiality and Ethical Considerations for Substance Use and Mental Health Providers** – Andrew Kurtz, LMFT, Pacific Mental Health Awareness Training, UCLA Integrated Substance Abuse Programs	**Alcohol and Drug Problems are About 50% Genetic: How that leads to improved prevention** – Marc A. Schuckit, MD, UCSD
11:45	**Lunch**	**Lunch**
1:15-2:00	**Technologies – New Addictions. What have we learned about behavioral addiction?** – Mateusz Gola, Ph.D., UCSD	**Motivational Interviewing: How to talk to people about change.** – Carla Marienfeld, MD, DFAPA, FASAM, UCSD
2:00-2:45	**Military Treatment for SUDs and Co-Occurring** – Geoffrey Bork, LCSW UC San Diego, Division of Extended Studies	**The Rapidly Changing Nature of the U.S. Polydrug Epidemics** – Thom Browne, Jr., MA, Colombo Plan
2:45	**Break**	**Break**
3:00	**Afternoon Workshops 3:00-4:30**	**Afternoon Workshops 3:00-4:30**
	New Technologies – New Addictions. Tools for diagnosis and treatment of behavioral addiction. – Mateusz Gola, Ph.D., UCSD	**Compassion for the Clinician: A Workshop for Reflection** – Gita Mehta, MD, Thomas Dooley, MFA, Institute for Empathy and Compassion, UCSD
4:30	**Day Ends**	**Day Ends**

Workshop Descriptions

Wednesday, June 15

New Technologies – New Addictions. Tools for Diagnosis and Treatment of Behavioral Addiction.
In this workshop I will present newest tools for behavioral addiction assessment, along with most important aspects of clinical interview. Through case studies, participants will have an opportunity to learn the most important differences between substance use disorders and behavioral addiction. We will focus on the most common aspects of gambling disorder, gaming disorder and compulsive sexual behavior disorder.

Thursday, June 16

Compassion for the Clinician: A Workshop for Reflection

Joan Halifax defines compassion as "the capacity to see clearly into the nature of suffering." In this interactive 75-minute workshop, participants will be invited to reflect on their lives and practice, give language to the many personal and professional losses we suffer, and find a way to recover clarity and purpose.

Faculty

Course Directors

David Deitch, PhD, is the Founder of the Center for Criminality and Addiction Research, Training and Application (CCARTA) at the currently Emeritus Professor of Clinical Psychiatry at the University of California, San Diego. Dr. Deitch has over 45 years of experience in the development of drug abuse treatment systems for adolescents and adults, nationally and internationally. In the non-profit public health sector, he was Co-Founder of Daytop Village, Inc., and also served as Senior Vice President and Chief Clinical Officer for Phoenix House's Foundation. In the academic sector, he has had appointments at Temple University, the University of Chicago, University of California at San Francisco, as well as serving as Chief of Substance Abuse Services for the University of California, San Francisco. In the government sector, he has served as Coordinator of Curriculum and Faculty for the United Nations East Central European Drug Abuse Treatment Training Project; has consulted to a variety of Department of Corrections and Ministries of Justice and Health, in Latin America, SE Asia and Europe. Dr. Deitch served during the Johnson Administration as consultant to the Presidential Commission for the Study of Crime and Juvenile Delinquency, and the National Commission on Marijuana and Drug Abuse. During the Carter Administration, he chaired the White House Task Force on Prevention. He chaired the Curriculum Development Committee of the National Addiction Technology Transfer Centers, Technical Assistance Publication Series 21 — The Addiction Counseling Competencies: The Knowledge, Skills, and Attitudes of Professional Practice, used today as a guideline for corrections and community based substance abuse treatment organizations. He has further served as Regional Director of the Executive Committee of the Association for Medical Education and Research in Substance Abuse — Mentor Project (2000). He has numerous publications (and videos) in the field.

Igor Koutsenok, MD, MS is a Professor of Practice in Psychiatry at the University of California San Diego, Director of the Center for Criminality and Addiction Research, Training and Application, Director of the SAMHSA Addiction Technology Transfer Center-Ukraine. He graduated as a medical doctor in 1983 at the National Medical University in Kiev, (Ukraine). In 1986, he completed his psychiatry residency training and received degree as psychiatrist from the Medical University in Sofia (Bulgaria). In 1993 -1996 he worked at the University of London, Department of Addictive Behavior and Psychological Medicine at St. Georges Hospital Medical School and completed Masters Degree in Addictive Behavior. In 1996, he was recruited by the University of California San Diego, School of Medicine, Department of Psychiatry and since then he serves as faculty member of the Department. In 2013-2016 he served as Chief of Prevention, Treatment, and Rehabilitation Branch at the United Nations Office on Drugs and Crime, United Nations Office in Vienna. Over the last 20 years Dr. Koutsenok led the design and implementation of multiple training and technical assistance programs for addiction treatment, mental health practitioners, primary health care and social work practitioners, criminal justice professionals in the United States and around the world. Dr. Koutsenok served as a trainer for the National Drug Court Institute in the USA. Dr. Koutsenok is also a member of the International Motivational Interviewing Network of Trainers (MINT). For many years, Dr. Koutsenok teaches general and addiction psychiatry to medical students, psychiatry residents, psychology trainees, social workers, criminal justice professionals, and policy makers around the world. He is a recipient of numerous national and international awards. He has authored and co-authored over 30 scientific publications and 4 book chapters. Dr. Koutsenok has been invited as a presenter and trainer to hundreds

Faculty

of conferences and workshops in the USA and more than 40 countries around the world. He is a proud father of three.

2022 UCSD SCI Distinguished Faculty

Chris Blazes, MD Blazes is Asst. Prof. of Psychiatry and Emergency Medicine at Oregon Health & Science University (OHSU). He is triple board-certified in psychiatry, addiction psychiatry, and emergency medicine and is the director of the OHSU addiction psychiatry Fellowship. Dr Blazes is a clinician educator whose practice is based out of the Portland VA Medical Center. He lectures widely and publishes on such topics as benzodiazepines, synthetic fentanyl analogues, buprenorphine, and the neurobiology of addiction and recovery. He is currently the principal investigator for a trial studying buprenorphine inductions on patients using fentanyl. He also recently published an article describing a new clinical entity, Complex Persistent Benzodiazepine Dependence as well as an article reconsidering the usefulness of adding naloxone to buprenorphine.

Geoffrey Bork, LCSW, served honorably in the Navy for 24 years, earned his bachelor's in psychology at the University of Phoenix, and a Masters in Social Work (MSW) at the University of Southern California (USC). He has worked in the field of addiction, co-occurring disorders, and complex PTSD for 18 years, mainly working with Active-Duty Service Members with these complex disorders and problems.

His work began by graduating from the Navy's Drug and Alcohol Counseling School (NDACS), working as a Drug and Alcohol Counselor for the Navy while on active-duty service at Point Loma Residential Treatment Program for three years. Mr. Bork then became a NDACS Advisor/Teacher, training and mentoring Intern counselors to become Navy Drug and Alcohol Counselors. Retiring from military service, he began working as an Alcohol and Drug Counselor for the Department of the Navy at Naval Hospital Camp Pendleton for 10 years. He worked as a licensed independent practitioner for the United States Marine Corps, at Camp Pendleton, where he helped active-duty service members, families, and retirees with addiction problems at Marine & Family Behavioral Health Services. He currently works at Naval Hospital Camp Pendleton Substance Abuse Rehabilitation Treatment Programs as a Licensed Clinical Social Worker for Co-Occurring Disorders continuing to help active-duty service members with complex problems in an Intensive Outpatient Treatment Program Co-Occurring Program, for the Defense Health Agency (DHA).

In addition, he works as an independent contractor with Options Recovery Services in Berkeley CA, working with the Offenders Mentorship Certification Program (OMCP), for the California State Prisons and Corrections Rehabilitation Department Justice system. In this role, he trains inmates in counseling characteristics and group dynamics to earn a certification as an Alcohol and Drug Counselor, helping reduce recidivism rates, decrease substance problems, and improve vocational jobs, educational opportunities in helping with transitioning into the community. Mr. Bork has also developed and published three alcohol and drug studies courses, two for UCSD Extension (Crisis Theory and Practice and Dual Diagnosis), and one for Palomar College (Group Theory and Practice).

Faculty

Thom Browne, Jr., MA Rubicon Global Enterprises: President and CEO (Aug. 2015 – present) Colombo Plan Secretariat: Chief Executive Officer (Jan. 2016 – present) Provides global technical assistance on drug prevention, treatment, recovery, and criminal justice issues. Chairs international working groups to develop certification for addictions counselors, licensing for treatment centers, and networks of treatment/ prevention professionals. Serves as expert advisor to selected international organizations on counter-narcotics issues. Develops specialized programs addressing unique international challenges such as identification of toxic adulterants added to drugs of abuse and related public health responses. Developed the U.S. government's program and approach to international drug demand reduction for over 25 years as the U.S. Department of State's Division Director for Criminal Justice Programs.

Zafiris J. Daskalakis, MD, Ph.D. is a Professor and Chair of the Department of Psychiatry at the UC San Diego. He was formerly the Temerty Chair in Therapeutic Brain Intervention and Chief of the Mood and Anxiety Division at CAMH. His research involves the use of magnetic brain stimulation to study the role of cortical inhibition, plasticity and connectivity as potential pathophysiological mechanisms in schizophrenia, depression and obsessive compulsive disorder. Dr. Daskalakis also conducts treatment studies using repetitive transcranial magnetic brain stimulation (rTMS), magnetic seizure therapy (MST) and electroconvulsive therapy (ECT) for resistant symptoms in these disorders. He has received several national and international awards and distinctions including the Samarthji Lal Award in Mental Health Research from the Graham Boeckh Foundation for the top mid-career neuropsychopharmacology researcher in Canada in 2013. He also holds or has held NIMH and CIHR peer-reviewed funding and has also mentored numerous NARSAD Young Investigator awardees. Finally, he has over 400 peer-reviewed publications, books and book chapters and is an editorial board member for Biological Psychiatry and an Associate Editor for Clinical Neurophysiology.

Thomas Dooley, MFA, poet for the past decade, has pioneered the health humanities at hospitals such as Mount Sinai Hospital and New York Presbyterian Columbia Medical Center, designing reflective writing programs for caregivers and clinical staff and implementing narrative interventions at the bedsides of patients. His research centers on attentiveness in the clinical encounter and he has been invited to present at the Mayo Clinic, Kings College London, University of Glasgow, Weill Cornell Medical College, and Columbia University, among others. Thomas is the Founding Artistic Director of Poetry Well, an organization dedicated to promoting poetry as a vital part of our individual and collective wellness for which he has created and directed live poetry events for New York audiences and featured on NPR's hit show Radiolab. Thomas' debut collection, Trespass, was selected by the National Poetry Series and published by Harper Perennial. He serves as the inaugural Resident Poet at T. Denny Sanford Institute for Empathy and Compassion's Center for Compassionate Communication, developing humanities curriculum and arts programming.

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Cary Hopkins Eyles, CAP, MA, Deputy Director is a certified addictions professional with 20 years of experience in the field of substance use disorders. She began her career in this field after graduating with a master's degree in criminology and becoming a counselor at a non-profit treatment center working with women and their children. In that non-profit organization, Cary moved into leadership roles and managed the Residential and Criminal Justice related programs. She has also supervised outpatient and pre-trial diversion programs. Prior to coming to ICUDDR, Cary helped oversee the Universal Treatment Curricula Coordinating Center at the University of South Florida. Cary is a passionate teacher and trainer – conducting UTC trainings as a Global Master trainer credentialed by ISSUP, INL, and CP as well as international trainings on various substance use disorder topics, adult learning principles, self-care for addictions professionals, the role of shame in substance use cycles, motivational enhancement, and more. She also is an instructor at the University of South Florida in Tampa, FL, teaching about drugs, crime, and the criminal justice system.

Mateusz Gola, Ph.D. is a psychotherapist and neuroscientist helping individuals with compulsive sexual behaviors (CSBD) through his clinical work and research allowing for better understanding of neural mechanisms underlying problematic pornography use. He is an associate professor of Polish Academy of Sciences and University of California San Diego and has authored and co-authored over 120 research publications on neuroscience of addictive behaviors, including first studies directly comparing mechanisms of CSBD with substance addictions. In his free time, he surfs and develops new mobile technologies supporting addictions recovery.

Lisa Heintz serves as the Director of Legislation and Special Projects for the Federal Court Receiver, and is the Project Executive for the Integrated Substance Use Disorder Treatment (ISUDT) program. Prior to this assignment, Ms. Heintz served as an Associate Director for the Division of Adult Parole Operations, and as the Chief Clinical Program Administrator for the California Department of Corrections and Rehabilitation (CDCR), overseeing the CDCR's Mental Health Continuum, including implementation of the Affordable Care Act for all CDCR releasing inmates. Ms. Heintz has over 25 years of applied program experience specializing in county, state and federal program design, implementation, and focused on obtaining successful outcomes to support recovery. Ms. Heintz' administrative experience is focused on addiction policies, barriers to treatment, correctional operations, adult parole operations, mental health program administration, court administration, project management and community-based program development.

Renee Kanan, MD is the Chief Quality Officer and Deputy Director, Medical Services Division for the California Correctional Health Care Services. She has spent much of her career creating sustainable quality management and population health programs within correctional systems including most recently the Integrated Substance Use Disorder Program. Dr. Kanan is a board-certified internist and has a master's degree in public health.

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Donna Kalauokalani, MD, MPH, "Dr. K" received her medical degree from the University of Hawaii, John A. Burns School of Medicine, trained in Internal Medicine and Anesthesiology at Washington University in St Louis, and obtained postgraduate training in multidisciplinary pain management at the University of Washington in Seattle - which spanned the entire spectrum from acute to chronic pain, addiction and palliative care. She went on to acquire additional training in Preventive Medicine, Program Development, and Health Services Research. She received her master's degree in public health and completed a prestigious fellowship in the Robert Wood Johnson Clinical Scholar's Program.

She has worked as a pain management specialist in a variety of health systems and has devoted her work to developing programs for vulnerable populations and studying the social determinants of health.

Dr. K authored clinical guidelines for pain management, palliative care, and substance use disorder for California Correctional Health Care Services and currently serves as Deputy Medical Executive for Integrated Care and Complex Patient Populations. She leads the clinical services aspects of the Integrated Substance Use Disorder Treatment Program.

Andrew Kurtz, LMFT is a Licensed Marriage and Family Therapist who has been a Clinical Specialist with UCLA Integrated Substance Abuse Programs since 2014 and is the Co-Director for UCLA ISAP's Pacific Mental Health Awareness Training project. Mr. Kurtz has previously served as a program director in community mental health, specializing in optimizing access to integrated services through a same-day assessment center. He has served as the lead contact of a nationally-recognized Trauma-Informed Care implementation that provided staff trainings and program design assistance to improve trauma services, including developing a one-of-a-kind wellness center focused on reducing barriers to accessing care for individuals exposed to traumatic events. Mr. Kurtz has been the instructor for the Fieldwork Practicum course in UCLA Extension's Alcohol and Drug Counseling Certificate Program since 2017. Mr. Kurtz has a background in research on cognitive and behavioral interventions for the treatment of first-episode schizophrenia diagnoses.

Carla Marienfeld, MD, DFAPA, FASAM is board-certified in psychiatry, addiction psychiatry, and addiction medicine, and she is a Clinical Professor at the University of California San Diego who supports recovery in an evidence based, harm-reduction approach through therapy, motivational interviewing, and medication treatment. Her research involves analysis of electronic medical record data for individuals with substance use disorders, and her lab has published recently on pregnant women with substance use disorder. She has over 2 million dollars in grant funding for research and to found the UCSD Addiction Psychiatry Fellowship Program. She was named a San Diego Top Doctor in 2021, and has grown the UC San Diego Addiction Recovery and Treatment program to a respected and thriving outpatient and inten-

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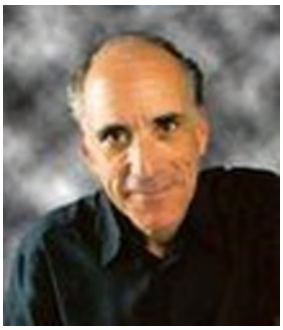
sive outpatient service for the UCSD and San Diego Community. She has authored or co-authored over 35 peer reviewed articles, book chapters, practice guidelines, and invited commentaries, and she edited two books: Motivational Interviewing for Clinical Practice and Absolute Addiction Psychiatry Review: An essential board exam study guide. She has been highly involved in education of colleagues and trainees about addiction psychiatry and effective interventions including buprenorphine treatment and motivational interviewing, and she is the fellowship director for the UCSD Addiction Psychiatry Fellowship. Dr. Marienfeld completed a fellowship in addiction psychiatry and residency training in psychiatry at Yale. During her residency, she was chief resident of psychiatry and founded (and later led) the Yale Global Mental Health Program. She earned a medical degree with honors from Baylor College of Medicine in Houston. She is active in many professional organizations, including the American Society of Addiction Medicine, the American Association of Addiction Psychiatry, and the American Psychiatric Association.

Gita Mehta, MD is a Professor Emeritus of Medicine at the University of California San Diego (UCSD). She is board-certified in Internal Medicine (1986), Geriatrics (1992) and has been on the faculty as a clinician-educator at UCSD since 1988, retired in 2017.

She has developed and implemented training programs utilizing simulation to train junior and mid-level faculty, and residents in the Department of Medicine in communication skills, mentoring and providing feedback. These programs have been incorporated in the yearly orientation program for incoming interns, and junior faculty. She is a certified Communication skills trainer and has developed and presented healthcare communication workshops internationally and at UCSD.

As a recipient of the Fulbright Scholar Award in 2018, she developed Faculty Development Programs to build a sustainable curriculum for trainees on Professionalism and Medical Communication in India. In conjunction with the Team at CCC, and as Program Director for the Sanford Communication Faculty Fellowship, Gita will collaborate on building innovative evidence-based educational programs to enhance delivery of relationship-centered compassionate care.



Marc A. Schuckit, MD, is Professor of Psychiatry and Director of the Alcohol and Drug Treatment Program, University of California, San Diego and the VA San Diego Healthcare System. Dr. Schuckit received his BS from the University of Wisconsin, an MD from Washington University, interned at Cedars Sinai Medical Center, and was a resident in psychiatry at Washington University and UCSD. He was a special advisor to the Commanding Officer of the Naval Health Research Center, and the first Director of the Alcohol and Drug Institute, University of Washington (1975-1978). He returned to San Diego as Professor and Director of the Alcohol and Drug Treatment Program, University of California, San Diego and the VA San Diego Healthcare System. Dr. Schuckit's major focus is alcohol and drugs. He was Chair of the DSM-IV substance disorders workgroup and has published papers about the optimal diagnostic criteria for substance use disorders. Regarding the genetics of alcoholism, he has carried out adoption studies, identified a genetic characteristic that impacts on elevated alcoholism risk (the low level of response to alcohol), and is now searching for related genes. He is currently completing a 20-year follow-up (97% success rate) of sons of alcoholics where he is trying to identify environmental events that might

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relate to whether biological predisposition toward alcohol dependence is expressed. An additional research area is co-morbidity between substance use disorders and major psychiatric conditions.

Dr. Schuckit directed the Alcohol and Drug Treatment Program at the VA San Diego Healthcare System, supervising residents, medical students and staff. He is also a major contact person regarding alcohol and drug problems in faculty and staff at UCSD and the San Diego VA. Additional clinical interests include the treatment of depressive disorders, anxiety conditions, and geriatric psychiatric populations.

Blending Addiction Treatment with Criminal Justice Environment - How to Make it Work?

— Igor Koutsenok, MD, MS

Blending Addiction Treatment with Criminal Justice Environment - How to Make it Work?

Igor Koutsenok, MD

Professor of Psychiatry
University of California San Diego, Department of Psychiatry,
Director, Center for Criminality and Addiction Research and Training
Director. International Addiction Technology Transfer Center- Ukraine

1

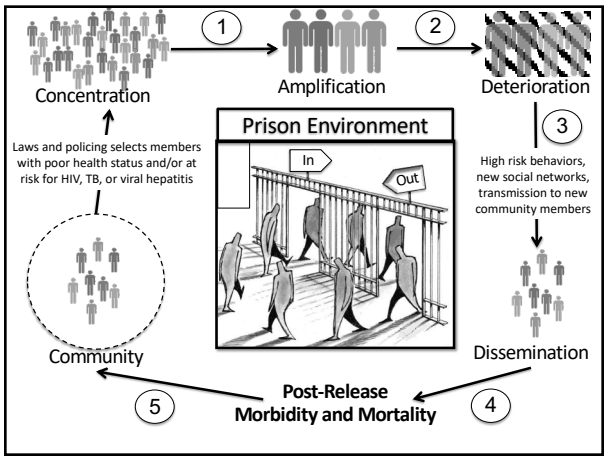
In this session we will cover

1. The rationale for SUD treatment in prison settings
2. How to apply science to make it work?
3. Pragmatics of How to Make it Work?

2

- Language is important. This is a reflection of our thinking, training, culture and belief system
- I use the term "**Justice Involved Clients**"
- You can call these individuals participants, offenders, defenders, students, clients, etc.
- **Two things** are important:
  - Let's use the least stigmatizing language
  - Let's remember, we are talking about the same people.

3



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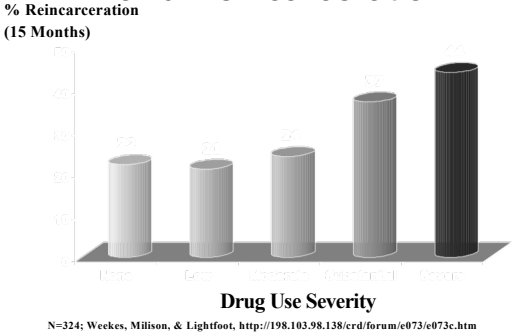
Every prison in the world has incapacitating effect, just the opposite to what we need in addiction treatment

5

Drug Use Severity and Reincarceration



N=324; Weekes, Milison, & Lightfoot, http://198.103.98.138/crd/forum/e073/e073c.htm

6

Here is what we know from science

- Not a single study of the effects of punishment (custody, mandatory arrests, increased surveillance, etc.) has found consistent evidence of reduced substance relapse rates and criminal recidivism.
- Multiple studies indicated that a large number of justice involved clients actually become more criminogenic following incarceration.

7

You can control behavior to some extent with coercion, and threat of punishment

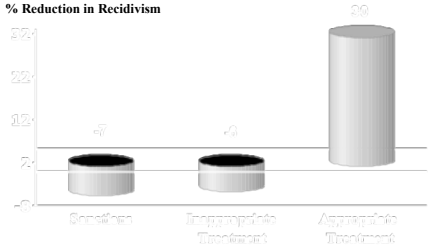
HOWEVER

Punishment *suppress* behavior only as long as you have external control, and there will be a predictable rebound when control fades

8

Criminal Sanctions Vs. Treatment!

(meta-analysis of 154 studies)



Andrews, D.A. 1994. An Overview of Treatment Effectiveness. Research and Clinical Principles, Department of Psychology, Carleton University. The N refers to the number of studies.

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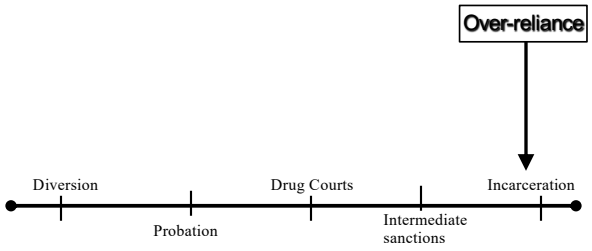
What if we put them all in prisons?



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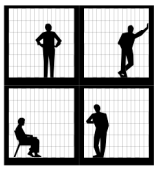
If we rely on prisons only



Criminal Recidivism in 3 Years

- 68% re-arrested
- 47% convicted
- 50% re-incarcerated

Relapse to Drug Abuse in 3 Years

- 95% relapse

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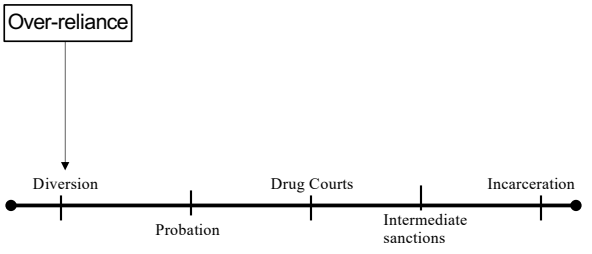
What if we send to all to treatment?



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If we rely on treatment only

Attrition

- 50% - 67% don't show for intake
- 60% - 80% drop out in 3 months
- 70% drop out within 2 - 6 months
- 90% drop out in 12 months

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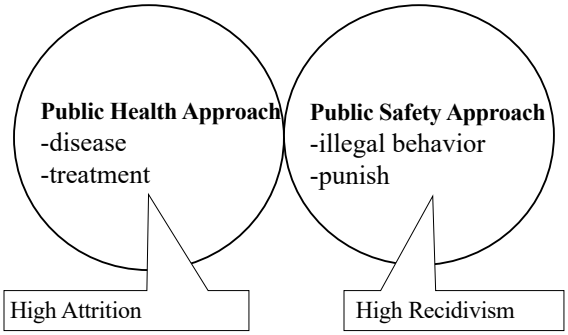
Addressing Drugs and Crime Separately



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What Doesn't Work in Criminal Justice Context?

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Ineffective Approaches
(no evidence of effectiveness)

- Fear-based drug prevention classes
- Shaming offenders
- Isolated drug education programs
- Freudian approaches (psychoanalysis)
- Self-Help programs alone
- Fostering self-esteem alone
- "Punishing smarter" (boot camps, etc.)
- Harsh confrontation
- "Just Say NO"

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So, What Works and How Do We Make It Work?

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So, what does work?

What works?

Psychosocial treatment
- Brief intervention
- Motivational therapy
- Cognitive-behavioural therapy
- Contingency management
- Family therapy
- Self help 12 step
- Vocational training

Pharmacological treatment
- Opioid-agonists
- Opioid-antagonists

Not one size fits all

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A Big Question

How to decide?

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Treatment Decisions
should
NOT
be Offence-Specific,
but Individual Specific,
based on the
Assessment

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Four Questions to Ask if We Want to Provide Effective Interventions

1. **WHOM TO TREAT?**
   Risk Principle – target higher risk offenders

2. **WHAT TO TREAT?**
   Need Principle – target criminogenic risk/need factors

3. **HOW TO TREAT?**
   Treatment Principle – use behavioral approaches

4. **HOW WELL TO TREAT?**
   Fidelity Principle – implement program as designed

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Most Common Criminogenic Risks

- Criminal onset < 16 years
- Prior rehabilitation failures
- History of violence
- Antisocial Personality Disorder
- Familial history of criminal involvement
- Criminal associations
- Criminogenic thinking and sentiment

22

Question 2: What to Treat?
Need Principle – target criminogenic need factors

- These are needs that are directly linked to criminal behavior.
- Any treatment not targeting criminogenic needs is counter-productive to effectiveness.
- ***The most common criminogenic needs – criminal thinking, criminal affiliations and substance use disorders***

23

Risk & Needs Matrix

	High Risk	Low Risk
High Needs		
Low Needs		

24

Risk & Needs Matrix

	High Risk	Low Risk
High Needs	Accountability & Treatment	
Low Needs		

25

Risk & Needs Matrix

	High Risk	Low Risk
High Needs	Accountability & Treatment	Treatment
Low Needs		

26

Risk & Needs Matrix

	High Risk	Low Risk
High Needs	Accountability & Treatment	Treatment
Low Needs	Accountability	

27

Risk & Needs Matrix

	High Risk	Low Risk
High Needs	Accountability & Treatment	Treatment
Low Needs	Accountability	Prevention

28

What is Best Practice?

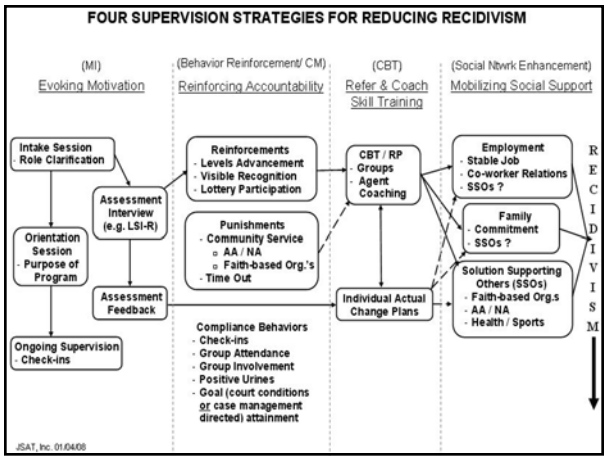
8 Evidence Based Principles to Reduce Recidivism

1. Assess Risk/Needs
2. Identify and enhance the individual's motivation
3. Target Criminogenic Targets
   a. *Risk Principle*
   b. *Need Principle*
   c. *Responsivity Principle*
   d. *Dosage*
   e. *Treatment Principle*
4. Experiential, "hands on", practical treatment
5. Highlight pro-social values and behaviors
6. Multi-disciplinary team approach
7. Measure Criminogenic outcomes
8. Provide 360 degree feedback

http://cjinstitute.org/files/evidencebased.pdf

- ✓ **Gender Informed**
- ✓ **Strength-based**

29



30

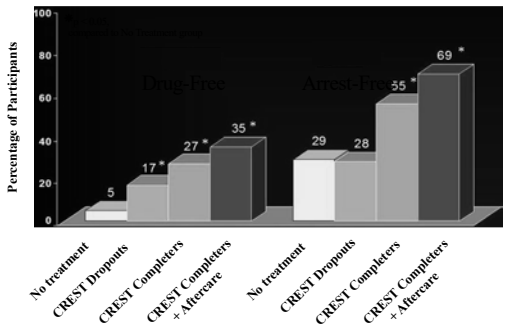
Treatment Should Be Behavioral in Nature

- Use rewards and sanctions effectively
- Train, practice, rehearse pro-social alternatives with offenders
- Completion criteria should be based on acquisition of pro-social skills
- Catch them doing something right and reinforce it
- Do not delay negative feedback when necessary

31

Continuity of care is essential

Delaware Work Release Therapeutic Community (CREST) + Aftercare 3 Years After Release (N=448)



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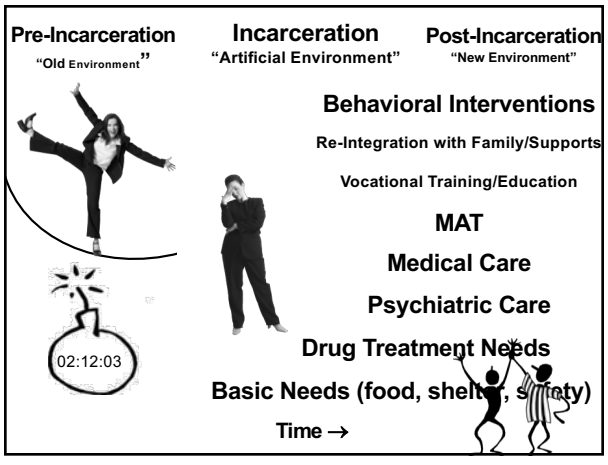

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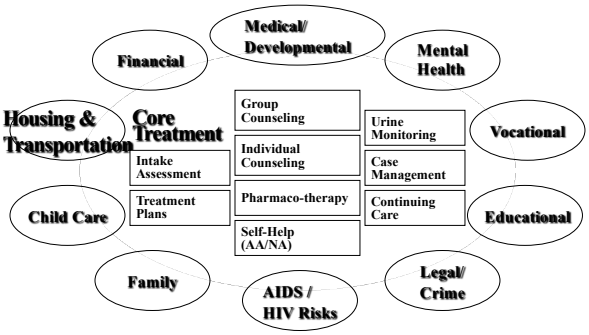
Treatment Integrity

Provide treatment as it was intended to be provided

34

Many Pieces to the Puzzle



Etheridge, Hubbard, Anderson, Craddock, & Flynn, 2007 (PAB)

35

36

Internet Drugs: Kratom, Phenibut, Tianeptine

—Christopher KM Blazes, MD, Oregon Health & Science University

Internet/Convenient Store Drugs

Christopher Blazes, MD

1

Disclosures

- Consulting for Bexson Biomedical

2

- Life is Hard!
  - Pandemic
  - Global warming
  - Growing political/Ideological schisms
  - Economic disparities
  - Dissolving Hope
- People are escaping in different ways
- Growing mistrust in the medical system

3

Anybody Picking up on a trend Here

- "Welcome to the dissociation generation, baby! In this dawning new age, doctors prescribe party drugs, politicians push weed legalization as historic budget deficits loom, and everyone is tripping balls in the name of self-care."

- Oregon Measure 110
- Cannabis Legalization
- Benzodiazepine epidemic

4

- In our modern overstimulating, "Amazon" Driven world, it seems we have access to anything we want, whenever we want it.
  - Just go online—can find anything
- Governing bodies can't keep up with regulations on dangerous products
- There are dangerous drugs that are **legal to buy and are unregulated** that anyone can easily buy at gas stations or on the internet…
- Let's Learn about a few….

amazon

5

- If I were growing up in this age, my impetuous adolescent brain with incomplete prefrontal myelination,
  - I probably wouldn't have had the restraint to avoid going to the gas station, or hoping on the internet to buy all kinds of fun things.

6

Objectives

- Review history of, evidence about, and treatments for:
  - Kratom
  - Tianeptine
  - Phenibut
  - Synthetic Cannabinoids
  - Nitrous oxide
  - Dextromethorphan

7

Kratom

8

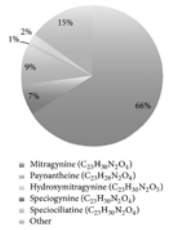
Kratom

- Kratom is a tropical tree (Mitragyna speciose) native to Southeast Asia
  - "Mitra" Mitre- Bishops hat shape of leaves
  - Grows to 45 feet tall
- Leaves traditionally chewed to combat fatigue and improve work productivity among farm populations in Southeast Asia

9

It's a Complicated Plant

- More than 40 active Phytochemicals
  - 2 Most important
    - Mitragynine
      - is the most prominent and with opioid effects
    - 7 -OH-mitragynine
      - Much more potent opioid activity
      - Present in much smaller quantity in leaves 1/20th



Cinosi E.; Martinotti; et all. Following "the Roots" of Kratom (Mitragyna speciosa): The Evolution of an Enhancer from a Traditional Use to Increase Work and Productivity in Southeast Asia to a Recreational Psychoactive Drug in Western Countries- Biomed Res Int. 2015; 2015: 968786

10

How Kratom is Consumed

- **Capsules/Pills**
- **Powder**
  - Toss N' Wash
    - Spoonful of powder and chug water after
  - Mix With OJ
  - Protein Shake
    - "Kratom Smoothie"
  - Kratom Tea
- **Leaves**
  - Chewed (only if fresh)
  - Smoked
  - Brew in Tea

11

Kratom

Its Pharmacology is complicated too

- Low Dose = Stimulant
  - Mechanism not well understood
  - 1-5grams
- High Dose = Opioid
  - 5-15 grams - pain relief
  - 15grams or above- sedation

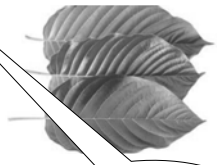
The Opposite of DXM (low dose= opioid, high dose= stimulant)

SOURCE: Prozialeck W. C., Jivan J. K., Andurkar S. V. Pharmacology of Kratom: an emerging botanical agent with stimulant, analgesic and opioid-like effects. Journal of the American Osteopathic Association. 2012;112(12):792–799; Singh, 2014; Suwanlert, 1975; Ahmad and Aziz, 2012; Vicknasingam et al., 2010; Singh et al., 2014

12

"Nature's Buprenorphine"

- **Partial agonist at Mu Opiate receptor**
- **Kappa antagonist**
  - greater affinity than Bup
- **High affinity** at Mu opioid receptor
  - higher than Morphine, lower than bup
- Also
  - **Stimulates Alpha 2 agonist receptors**
  - SNRI activity



Initial studies are happening to test it's value as a Tx for opiate withdrawal

One Major difference—Half life is only 6 hrs

13

How It's Marketed

Differentiated by the colors of the Stems and Veins of the leaves

- Its all the same plant
  - The difference is in the veins and the veins indicate the maturity of the leaves.
    - The red veins indicate a fully mature leaf
    - White indicates a young leaf.
    - Green is in the middle.
- White Vein Kratom –
  - Mild Stimulant
- Red Vein Kratom
  - Most popular (most powerful)
  - Sedation/Sleep
- Green Vein Kratom –
  - "Somewhere between red and White"

Red Veined "The Mightiest"

White Veined "Mildest" youngest

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Kratom Marketing

- Also differentiated by where its grown
- Most Plants grown in Thailand have 66% Mitragynine content
  - Plants grown in Malaysia/Indonesia have 12%

Maeng Da is a highly stimulant strain which is the strongest strain of Kratom.

Signature Effects of Maeng Da: Pain relief, energy, high stimulation, relaxation, rejuvenation, focus, concentration, opiate withdrawal, relief against insomnia

Signature Effects of Bali: Mild stimulation, relaxation, sedation, analgesia, positive approach, euphoria.

Maeng Da Thailand

Bali - indonesia

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Kratom

Depends on the strain

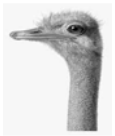
- **Onset**
  - 10-30 minutes
- **Duration**
  - 3-8 hrs
  - Maeng Da
    - Onset of action in 15-30 minutes.
    - Duration of effects - 5-8 hours
  - Bali Kratom is faster acting, but it has a short duration.
    - Onset within 10-15 minutes
    - Duration 3-4 hours.

- **Therapeutic Dose**
  - 1-8 grams
- **Dose to get high**
  - 5-15 grams

16

Interesting anecdotes…

- Kratom may have some self limiting properties
  - Some say if you dose higher
    - causes nausea
  - Some say it only really works to get high once/day



- Fastest 2 legged animal
- Eyes are larger than its brain

17

Is it Legal?

- Not Yet Scheduled By **DEA**
  - Scheduling under consideration in U.S.
- The **FDA** issued a public health advisory 11/2017
  - regarding the risks associated with kratom and reported deaths with use.
- Illegal in Some states
  - Arizona, Alabama, Indiana, Wisconsin, Rhode Island, and Vermont
  - Illegal to underage only
    - Illinois, New Hampshire, Tennessee

- Restricted or Illegal
  - Australia,
  - Lithuania,
  - Romania,
  - Denmark
  - Myanmar,
  - South Korea,
  - Finland,
  - Malaysia,
  - Sweden,
  - Israel,
  - Poland,
  - Thailand,
  - United Kingdom

18

Where can you Get It?

- Pretty Much Anywhere
  - Gas Stations
  - Head Shops
  - Online

In most states- children can buy it!!!

19

Who is using it?

- Estimated to be 0.9-1.5% of US population

Often by people who were resistant to classic western medicines

Kratom—Pharmacology, Clinical Implications, and Outlook: A Comprehensive Review Steven C. Eastlack, Pain Ther (2020) 9:55–69

20

Why do people use it?

- A cross-sectional, anonymous online survey was conducted between January and December 2017
  - Kratom was used for:
    - pain (91 %),
    - anxiety (67 %),
    - depression (65 %),
    - To stop or reduce prescription or illicit opioid use (41 %)
  - **"reporting robust effectiveness for these indications."**

Kratom (Mitragyna speciosa): User demographics, use patterns, and implications for the opioid epidemic
Albert Garcia-Romeu, David J. Cox, Kirsten E. Smith, Kelly E. Dunn and Roland R. Griffiths
Drug and Alcohol Dependence, 2020-03-01, Volume 208

21

Who is Using It?

- A 2016 anonymous online survey of 8049 current kratom users
  - **Demographics**
    - **Educated, affluent middle-aged men**
      - Kratom was primarily used by:
        - 31-50 yo men (56.91%)
        - with income $35,000 or higher
        - with private insurance (61.31%).
  - **Purpose of use**
    - Self-treat pain (68%)
    - Self treat emotional or mental conditions (66%)
    - Self treat withdrawal symptoms from prescription opioid use.

Grundmann O.; Patterns of kratom use and health impact in the US results from an online survey. Drug Alcohol Depend. 2017; 175(5):63Y70.

- **Another more recent Study (Garcia-Romeu 2020)**
  - 90% White
  - 61% Female

22

National Poison Data System Data

People Really Like Kratom in Oregon

The darker the state- the higher the prevalence of Poison center calls

Figure 2. Kratom exposure rate per million state residents by state, NPDS 2011–2017.

National Poison Data System Data

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Poison Center Data

Kratom Use is Rapidly Increasing

- NPDS (national poison data system) data From 2011-2017
- 1807 exposures called in:
  - 65% of which occurred in 2016 and 2017
  - 31% required admission
  - 11 deaths
    - Most of which had other substances involved

National Poison Data System Data

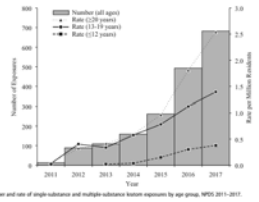

Figure 1. Annual number and rate of single-substance and multiple-substance kratom exposures by age group, NPDS 2011–2017.

Kratom exposures reported to United States poison control centers: 2011–2017

Sara Post,Henry A. Spiller,Thitphalak Chounthirath &**Gary A. Smith**

Clinical Toxicology Pages 847-854 | 20 Feb 2019

24

Is Kratom Dangerous?

… it probably can kill you—

- MMWR 2019
  - Kratom was detected on postmortem toxicology testing in 152 cases in data collected from 11 states in 2016-17.
  - Kratom was **identified as the cause of death** by a medical examiner in 91 of the 152 Kratom-positive deaths,
  - but was the **only identified substance in 7 of these cases**
- 2019 article assessing kratom-related mortality in Colorado,
  - at least 4 of the 15 total deaths which involved Kratom between 1999 and 2017 were attributable exclusively to mitragynine toxicity

Gershman K, Timm K, Frank M, Lampi L, Melamed J, Gerona R, et al. Deaths in colorado attributed to Kratom. N Engl J Med. 2019;380(1):97–8.

Olsen EO, O'Donnell J, Mattson CL, Schier JG. N. W. Notes from the field: unintentional drug overdose deaths with Kratom Detected — 27 States, July 2016–december 2017. Mmwr. 2019;68:326–327.

25

How Can it kill you?

- We are not 100% sure
  - Likely not Respiratory suppression
    - Not commonly reported for Kratom
    - Partial agonist
    - Likely more likely when combined with other depressants
  - May be more related to stimulant effects
    - Arrhythmias and such
  -

The respiratory depressant effects of mitragynine are limited by its conversion to 7-OH mitragynine. Br J Pharmacol. 2022;1–11.

26

Adverse Effects

Cases of Toxicity

- Agitation/Aggression 18.6%
- Tachycardia 16.9%
- Confusion 6.1%
- Seizures 6.1%
- Hallucinations 4.8%
- Coma 2.3%

- Case reports of psychosis
  - Cutlip 2021

Kratom—Pharmacology, Clinical Implications, and Outlook: A Comprehensive Review. Steven C. Eastlack Pain Ther (2020) 9:55–69

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Adverse Effects
Case Studies

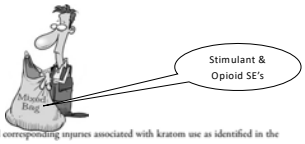

Table 1 Spectrum of organ system involvement and corresponding injuries associated with kratom use as identified in the case study literature

Organ system	Presentation signs and conditions	References
Hepatic	Acute liver failure, hepatitis, transaminitis, intrahepatic cholestasis, hepatomegaly	[23, 108–116, 131]
Endocrine	Hypothyroidism, hypogonadism	[26, 100]
Renal	Acute kidney injury	[67]
Cardiac	Cardiotoxicity, arrhythmia	[98, 99]
Pulmonary	Acute lung injury, ARDS	[101, 102]
Obstetric	Neonatal abstinence syndrome	[103–107]
Neurological	Acute brain injury, seizure, coma, cognitive impairment	[21, 81, 117, 118]

Kratom—Pharmacology, Clinical Implications, and Outlook: A Comprehensive Review. Steven C. Eastlack Pain Ther (2020) 9:55–69

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Adverse effects

- Some believe that a portion of Reported adverse effects might be related to contaminants
  - Its an unregulated supplement
    - Without regulatory oversight, there is little to ensure the authenticity, purity, quality, potency, and safety
    - Even FDA doesn't monitor what's in dietary supplements

- To get competitive advantage……other things get added
  - Some case reports of Kratom products containing hydrocodone
  - Some products contain higher percentage of more potent 7-hydroxy-mytraginine

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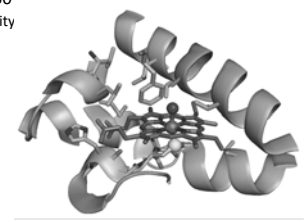
Kratom can cause drug interactions

- It Appears to inhibit P450
  - Might increase the activity other meds



30

Treatment

- Not much Guidance from the Literature
- Back to Basics -- **Principles**
  - **Stabilization** and prevention of organ injury in the setting of intoxication/overdose
  - Treat the **acute withdrawal**
  - Treat the **addiction.**

Kratom—Pharmacology, Clinical Implications, and Outlook: A Comprehensive Review. Steven C. Eastlack Pain Ther (2020) 9:55–69

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Treatment - Stabilization

- Treatment of intoxication or overdose -**Mostly Supportive**
  - **Symptomatic treatment**
    - IV fluids and Benzo's are most commonly used

Post et al Clinical Toxicology 2019

Table 4. Selected therapy received by individuals with single-substance kratom exposures, NPDS 2011–2017.

Selected therapy	n (%[a])
Single substance exposure total	1174
Fluids, IV	610 (52.0)
Benzodiazepines	368 (31.3)
Other	260 (22.1)
Oxygen	173 (14.7)
Naloxone	147 (12.5)
Sedation (other)	140 (11.9)
Intubation	101 (8.6)
Antiemetics	89 (7.6)
Dilute/irrigate/wash	68 (5.8)
Vasopressors	17 (1.4)
CPR	12 (1.0)
Antihypertensives	11 (0.9)
Anticonvulsants	10 (0.9)
Antiarrhythmic	8 (0.7)
Hemodialysis	5 (0.4)

[a]Column percentages for selected therapies were calculated by using the study's total number of single-substance exposures as the denominator and sum to >100.0% because some exposures received >1 therapy.

8.6% got intubated

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Withdrawals

- Because of the short half life- (4-6hrs)- Withdrawals last only 4-7 days
  - Seems to be quite predictable
- **Similar to classic opiate withdrawal**
  - Sweating, Goose Flesh, N/V/D…
  - Measure with COWS
  - **Many say its less severe**
  - More recently seeing worse withdrawals
    - Maybe because the products have hydrocodone or other opiates added
    - Maybe they have higher content of 7-oh-mitragynine

33

Withdrawal

- Supportive Management
  - **Alpha 2 agonists**
    - **Remember- Kratom has Alpha 2 agonist properties—can get rebound**
  - Drink lots of fluids
  - Anti-diarrheal agents
    - Loperamide
  - Zofran
  - Buprenorphine??

34

Treatment – No FDA approved Treatments

No guidance in the Literature

- Treat like any other Opiate Use Disorder
  - Naltrexone or Buprenorphine
    - Can't justify Methadone (so many federal regulations—little wiggle room– Kratom has not been determined to be an opioid
  - Engage in Recovery
    - Medical/Self help

Khazaeli A, Jerry JM, Vazirian M. Treatment of Kratom Withdrawal and Addiction With Buprenorphine. J Addict Med. 2018;12(6):493–5

Agapoff JR, Kilaru U. Outpatient buprenorphine induction and maintenance treatment for kratom dependence: a case study. J Subst Use. 2019;24(6): 575–7.

35

Treatment

- **Buprenorphine** is commonly used
  - **For maintenance**—case reports
    - Both partial agonist with similar affinity
    - What Dose?
      - Often end up 6-10mg
    - How long to wait for induction?
      - 12-24 hrs
      - May not show classic signs of withdrawal
  - **For Detox/Withdrawal treatment**
    - Bup 4mg day 1, 2mg day 2, 1 mg day 3 or
    - 8,4,2,1
    - I have found lower doses are enough
  - Is it possible to get precipitated withdrawal?
- **Naltrexone** certainly can cause a precipitated withdrawal
  - Would follow classic pathways to initiate

36

Screening

- Urine tests
  - Expensive confirmatory tests
    - Advanced liquid chromatography - tandem mass spectrometry (LC-MS/MS)
  - Screening Tests
    - ELISA – Available now, but….
- Hair and Nail tests
  - 3-6 months


Anal Biochem. 2020 Jun 15;599:113733. doi: 10.1016/j.ab.2020.113733. Epub 2020 Apr 14.

Development of an ELISA for detection of mitragynine and its metabolites in human urine

Mei Jin Lee [1], Suresh Kamarajan [1], Sharif Mahsufi Mansor [1], Soo-Choon Tan [1]

37

Immunoassay Kratom tests

- No CLIA Waived Kratom Tests
- What is CLIA
  - Central Laboratory Improvement Amendment (CLIA) –
    - 1988 CDC – establishes federal standards for laboratory testing
- Name of Company is "CLIAwaived.com"
- In the small print it says
  - "Not FDA Cleared, not CLIA waved. **For research only**"
  - In other words not approved for clinical decision making
  - But its available to buy for $50


CLIAwaived.com
The Point-of-Care Marketplace™

Kratom Rapid Urine Test Kit

SKU: xxx-A-adCard-01-HRA100

$50.00

(25 Tests)

This item will only be available while supplies last. Consider substitute item HC+HDR-114.

New! Rapid urine test for Kratom (Mitragynine) - 100 ng/mL - Simple dip and read drug screen test for detection of Kratom in urine sample.

NOTE: Not FDA cleared, not CLIA waived. For research use only.

38

"It's not Fair"

- One of my patients said:
  - "It's not Fair!!! I know many people who use it regularly and they don't have any problems, and it really helps them. I can't stop thinking about it"
- Addiction really isn't fair
- Many People can use Kratom and some may even derive benefit from it—can use it like coffee for example
  - But its very risky with genetic predisposition to addiction or h/o addiction

40

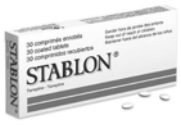
Tianeptine

- "I took one pill, it felt like a hard core opiate a doctor would prescribe"

41

Tianeptine

- Atypical antidepressant approved for use in **Europe** & **Asia**
- Sold under the brand names Stablon and Coaxil
  - Used to treat severe depressive episodes and anxiety
  - Also used for asthma and irritable bowel syndrome



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Tianeptine

- Not Scheduled by DEA
- Legal everywhere except
  - Banned in Michigan/Alabama

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Tianeptine Mechanism of Action

- Tricyclic–Like antidepressant
  - Mechanism is complicated
    - Modulates
      - Glutamate
      - Serotonin
      - Dopamine
- Opiate Activity
  - **Full agonist** at the mu opioid receptor
  - Negligible effects at the delta and kappa Opioid receptors

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Complex Mechanism for Your Reference

- **Stabilization of glutamate levels.**
  - Studies have shown that tianeptine can regulate the glutamatergic system in a variety of brain areas. Rodent studies have shown that tianeptine can prevent stress-induced glutamate increase in the amygdala. The amygdala is a structure which is well-known to be involved in the regulation of emotion, reward and fear. Therefore, balancing glutamatergic activity within this structure may play a role in regulating mood. Tianeptine has also been shown to prevent aberrant reorganization of glutamatergic vesicles at the synapse in the rodent hippocampus. This indicates there tianeptine can actually protect against anatomical pathologies related to stress. Ultimately, the excitatory-inhibitory (glutamate-GABA) balance is vital to health brain function, and dysregulation of these systems are associated with many psychiatric disorders. This glutamatergic regulation may prevent mood disorders such as depression and anxiety.
- **Boosts serotonin uptake in cell.**
  - Other classical anti-depressants work by modulating the serotonergic system. Serotonin is a molecule that often becomes decreased in depression, leading to the symptoms of low mood. Tianeptine helps neurons to soak up extracellular serotonin, increasing intracellular levels, and potentially balancing any deficit.
- **Activating adenosine receptors.**
  - Tianeptine can activate the adenosine A1 receptor subunit. This may help with anxiety as activation of this receptors has been shown to reduce heart rate. A reduction to heart rate may lower the physical symptoms associated with anxiety and panic, without masking interrial thoughts or emotions completely.
- **Restores levels of BDNF after stress.**
  - Tianeptine has been shown to aid in the regulation of a vital neuronal growth factor, brain-derived neurotrophic factor (BDNF). BDNF is a well characterised growth factor which has role in neuronal growth, survival and synaptic plasticity. Both cellular and animal studies have shown that acute and chronic stress lowers BDNF levels. However, tianeptine is able to rescue this phenotype. Since BDNF is so critical to synaptic function, plasticity and stabilisation, this may be one mechanism which underlies the improvements seen to learning, memory and cognition after tianeptine treatment.

45

Where to Buy

- Online,
- Gas station
- smoke shops
- convenient stores
- Can Buy on Etsy

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Tianeptine

- Its marketed as a "nootropic"
  - Enhance cognition

Common Nootropics
-Caffeine
-Nicotine
-Ginkgo Biloba
-Ginseng
--modafinil
-Amphetamines

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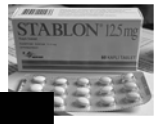
Formulations

- Capsule (Europe, Asia)
- Tablet (Europe/Asia)
- **Powder forms**



- **Ingesting**
- **Snorting**
- **Injecting**

48

Two Kinds – Very different Properties

- **Tianeptine Sulfate**
  - Marketing Add
    - "a subtle but sustained boost"
  - Delayed onset
    - 2-4 hrs to "Kick in"

- **Tianeptine Sodium**
  - Quicker absorption and excretion
  - Marketing add
    - "Tianeptine sodium is great for providing quick short bursts of improved mood and energy, but this feeling won't be sustained long-term."
  - **Tolerance develops very fast**
    - Likely more addictive

49

Bluelight & Erowid

- Tianeptine
  - "the sodium is EXTREMELY compulsive"
  - "A 100 mg dose for me is indistinguishable from 30 mg of oxycodone—and a high is so short lived is easy to blow through 2-3 g in a day"
  - "the urge to re-dose is crazy, and withdrawals are horrific"

BLUELIGHT

Erowid Center

50

Many people are Using it for home Detox

- From other Full agonist opioids
- From Buprenorphine

- Harm Reduction
  - Not that I would recommend it but…
  - Best if they use Sulfate if they use

51

Characteristics of Misuse

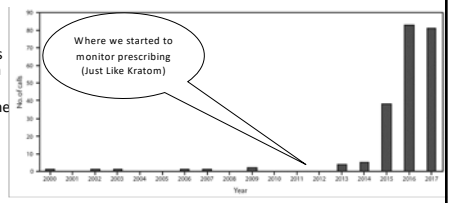
- **Tianeptine Abuse and Dependence in Psychiatric Patients: A Review of 18 Case Reports in the Literature.** Janusz Springer &**Wiesław Jerzy Cubała. J Psychoactive Drugs** Pages 275-280,01 **Mar 2018**

- Highest abuse potential in 30-45yo women
- Therapeutic dose exceeded 110 fold on average
  - Mean avg dose 1469mg/day
  - Therapeutic dose 12.5mg tid
- Most prominent symptoms
  - Marked Euphoria
  - Withdrawal

52

Recreational Use

- MMWR 2018 Zahran
- CDC Data
  - 2400% increase in calls to poison centers from 2014-2019
  - 64% Misused tianeptine alone
  - 36 % used with other "Nootropics" like phenibut, or Benzos, Alcohol, other opiates



53

Tianeptine Intoxication

Is It Dangerous????

- Characteristics of tianeptine effects reported to a poison control center: a growing threat to public health. William Rushton, Clin Toxicol (Phila). **2021** Feb;59(2):152-157

- Review of 84 cases of intoxication
  - 56% required admission
  - 17% required ICU care
  - Lethargy was the most common presentation
  - Withdrawal was associated with anxiety agitation and gastrointestinal distress
  - 25% required naloxone

Yes- It's dangerous

54

Overdose can be Fatal

- "Case Reports of Fatalities Involving Tianeptine in the United States". Bakota EL, Samms WC, Gray TR, Oleske DA, Hines MO, J Anal Toxicol. 2019 Mar 1;43(2

- 2 cases of Overdose fatalities in Texas
  - Both after injecting powder

55

Overdose can be reversed with naloxone

- 36-year-old male intentionally injected tianeptine powder intravenously to "help him see into the future".
  - He became unresponsive and a bystander called emergency medical services.
  - Was successfully reversed with two doses of naloxone 0.4 mg IV.
  - He was started on a naloxone infusion at 0.2 mg/h and discharged 13 h after admittance awake, alert and oriented.
- Acute Toxicity From Intravenous Use of the Tricyclic Antidepressant Tianeptine, Sara K. Dempsey, J Anal Toxicol. 2017 Jul; 41(6): 547–550.

56

It can Cause NOWS (Formerly NAS)

- Neonatal abstinence syndrome following tianeptine dependence during pregnancy, Bence C, Bonord A, Rebillard C, et al. Pediatrics 2016;137:e20151414.
- "Maternal tianeptine dependence during pregnancy may induce a type of NAS that mimics opiate NAS?

57

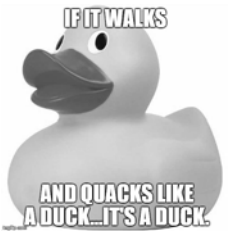
Withdrawal & Tolerance

- Withdrawal
  - Official DEA statement states that the withdrawal symptoms in humans typically result in: agitation, nausea, vomiting, tachycardia, hypertension, diarrhea, tremor, and diaphoresis
- Tolerance
  - Definitely Yes
    - People very quickly end up on very high doses
  - Develops very fast with Sodium version

58

Controversy? Is it an Opioid?

- Its an opioid



59

Treatment Options

- I use Buprenorphine
  - For detox
    - 3 days
      - 8mg, 4mg 2mg
  - For maintenance if addicted

- Case report of Using Buprenorphine to treat Tianeptine use disorder
  - Use of Buprenorphine-Naloxone in the Treatment of Tianeptine Use Disorder, Paul Trowbridge , Alexander Y Walley, J Addict Med: Jul/Aug 2019;13(4):331-333.

Consider an SSRI if depression is an issue

60

Urine blood Tox Testing

- No common immunoassay test for it
- GCMS very limited and only blood and send out
  - One study looked at testing for urine metabolites
- If you're suspicious –
  - off the record --Test for TCA's
    - --Can cross react with TCA

61

I'm Nervous about this one!

- As opiate de-prescribing continues

62

64

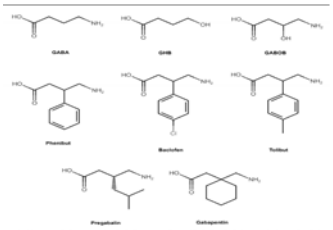
Phenibut

- Where did this Funny Name Come from?
- How do you pronounce it?

65

β-**Phenyl**-γ-amino**but**yric acid

- Phenibut
  - also known as Fenibut, Phenybut, Noofen, Citrocard
- Developed in the Soviet Union in the 1960s,
  - used as a **pharmaceutical drug** to treat a wide variety of conditions;
    - Post-traumatic stress disorder
    - Anxiety
    - Depression
    - Insomnia
    - **Alcoholism**
      - **cravings/withdrawal (1)**
    - Stuttering
    - vestibular disorders



1) Ashton H. Benzodiazepine withdrawal: an unfinished story. BMJ 1984;288:1135–40.

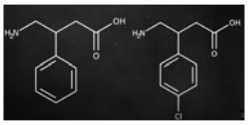
66

- Soyuz mission 1975
  - Taken by Cosmonauts
  - In their medical kits

67

GABAb and GABAa Activity

- Phenibut has a near-identical structure as baclofen
  - lacking only a chlorine atom in the para-position of the phenyl group



- Acts Like Baclofen
  - Full agonist at GABAb
- Acts like gabapentin
  - also acts at GABAa
    - Ca+Chanel Blocker
      - Blockade At alpha subunit of voltage dependent calcium channels

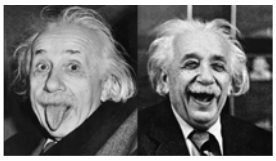
68

Marketed as a Cognitive Enhancement

- Available through online retailers as a Nootropic supplement
- Likely not true
  - At low doses, It does **Preserve** cognition better than other sedatives like Benzo's or alcohol
  - This effect combined with its anxiolytic effects—may explain why it makes people think they are thinking better

69

Low Doses Make you Think better – Some say…



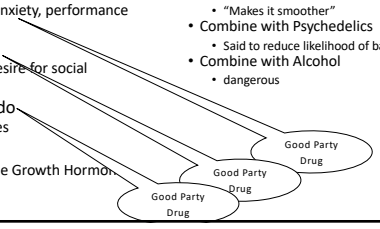
- Lower doses (under 1 gram) are typically used as a cognitive and lifestyle supplement
- Higher doses are used for a recreational high
  - Subjectively similar to GHB, alcohol, and certain benzodiazepines.

70

Why do people take it?

- Most say it is very good at diminishing anxiety
  - Esp. social anxiety, performance anxiety
- Disinhibition
  - Increases desire for social interactions
- Increases libido
  - At high doses
- Weight lifters
  - May increase Growth Hormon

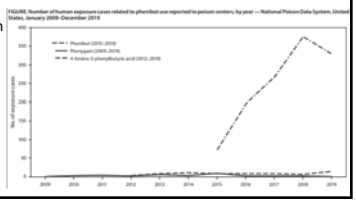
- People enjoy combinations
  - People combine with stimulants
    - "Makes it smoother"
  - Combine with Psychedelics
    - Said to reduce likelihood of bad trips
  - Combine with Alcohol
    - dangerous



71

Gaining Popularity MMWR 2020

- 1,320 calls related to phenibut.
- Sharp rise beginning in 2015
  - going from a handful of calls each year to between 300 and 400 in 2018 and 2019.
  - **Maybe as Benzo's were being deprescribed**



72

Really Cheap

- As low as 23 cents/gm
- That's about $2/day for a heavy habit

73

Typical Dosing

- Recommended Dose as Nootropic
  - 250-750 mg/day for subtle effects
  - 750-1500mg/day for more powerful effects
- Recreational use
  - 3-8+ grams/day
- Half life
  - 3-5hrs

74

Overdose

Looks like Alcohol or Benzo Overdose

- Severity of Symptoms is Dose dependent
  - Cognitive Impairment
  - Drowsiness
  - Confusion
  - Bradycardia/Hypotension
  - Hypothermia
  - Respiratory Depression
  - Coma
  - Drunken like motor impairment
  - Psychosis
- Rarely Lethal unless in huge doses or combination
  - Estimated to be 10,000MG

76

Recent Article for reference --- MMWR 2020

- Who's Using it?
  - Most users are 18-34 yo (58.4%)
  - 75% men
- Most common Symptoms reported in overdose:
  - Sedation -29%
  - respiratory depression
  - reduced levels of consciousness –
    - Confusion 21%
    - Coma 6.2%
  - Tachycardia -29%
- Withdrawal symptoms
  - anxiety, agitation, and acute psychosis

CDC MMWR Morbidity and Mortality Weekly Report

Notes from the Field: Phenibut Exposures Reported to Poison Centers — United States, 2009–2019 Weekly / September 4, 2020 / 69(35);1227–1228
Janessa M. Graves, PhD1; Julia Dilley, PhD2; Sanjay Kubsad3; Erica Liebelt, MD

77

Is It Dangerous?

- MMWR - 2020
- "Overall, 80 people fell into comas and three died.
  - Mostly had taken other substances as well.
- Cases where phenibut was used alone
  - 10% resulted in serious effects
  - One death

78

PHENIBUT

- Bottom Line
  - Just like Benzos…..Yes its dangerous but…
- Most likely is Potentially Lethal only when combined with sedative drugs: Ex
  - Alcohol
  - Benzos
  - Opiates

79

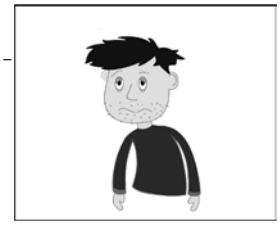
Is it Addictive?

- Tolerance and dependence can happen within a few days (If taken in high doses)
  - Increases likelihood in people who tend toward compulsive use
  - End up on very high doses quickly
- Within 2 weeks at regular doses

80

Withdrawal

- Somewhat Like Benzo withdrawal
  - Essentially neurologic excitability – elevated glutamatergic tone
    - Anxiety/panic
    - Depression
    - Insomnia
    - Muscle twitches
    - Diaphoresis
    - Irritability
    - Hallucinations
    - Delirium
    - Seizures



81

Treatment of Withdrawal

- Literature Guidance is Mostly Case Reports
  - Baclofen
    - 10 mg for every gram of Phenibut was recommended by one case report max rec dose 120
    - I use 10-30 tid
      - Taper slowly
  - Phenobarbital Taper
  - Gabapentin
- Can be severe
  - May even require admission
  - Can Follow with CIWA-A or B protocols

Samokhvalov A. V., Paton-Gay C. L., Balchand K., Rehm J. Phenibut dependence. 2013

Case Report of Physiologic Phenibut Dependence Treated With a Phenobarbital Taper in a Patient Being Treated With Buprenorphine, Brunner E, Levy R, J Addict Med. 2017 May/Jun; 11(3):239-240.

82

Treat The PAWS

- Chronic and/or high dose use
  - Expect protracted withdrawal
    - Like Post acute withdrawal syndrome from Benzodiazepines
  - Consider several months of:
    - Baclofen
    - Gabapentin
    - Antiepilieptics
      - Oxcarbamezapine
        - 150 bid
      - Valproic Acid
        - 250-500 BID
- Opinion Alert

83

Toxicology for Phenibut

- GCMS works (if its in the library)
- No commercially available Immunoassays

84

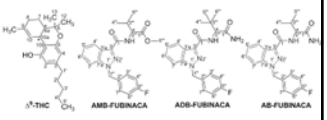
Synthetic Cannabinoids

- Best known as “Spice” or “K2”
  - Also
    - AK-47
    - Mr. Happy
    - Scooby Snax
    - Kush
    - Kronic
- Many different chemicals (Hundreds)
  - Two of the most common
    - ADB-FUBINACA
    - AMB-FUBINACA
- They come in pretty packages
  - “attention grabbing” bags

85

Synthetic cannabinoids

- Most were originally synthesized for biomedical and therapeutic research
  - Trying to find beneficial activity at Cannabinoid receptor
  - Ex: Pfizer patented the compound ADB-FUBINACA
    - Also known as
      - (S)-N-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-(4-fluorobenzyl)-1H-indazole-3-carboxamide



Nabilone is a Synthetic cannabinoid
FDA approved for Chemo Induced N/V

86

Synthetic Cannabinoids

- In July 2012, the DEA banned synthetic cannabinoids, explicitly naming 15 chemicals
  - Since then **Less Supply**
    - Harder to Get
  - Also **Less demand**
    - states where cannabis is legal

87

They're still out there…

- Several factories, mainly in China, continue to produce and export Synthetic cannabinoids in bulk powder
  - Many different chemicals with unpredictable effects and toxicities
  - At least 280 synthetic cannabinoids have been identified

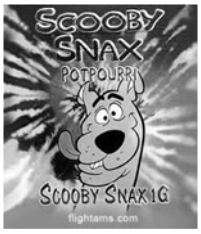
Noticing a recurrent theme here

Synthesis of nine potential synthetic cannabinoid metabolites with a 5F-4OH pentyl side chain from a scalable key intermediate, wu 2021

88

Synthetic Cannabinoids

- **Can still buy** on internet
  - Mostly dark net
- Labeled – "Not for human consumption"
  - "Herbal Incense"
  - "Potpourri"



89

Synthetic cannabinoids

- **How is it formulated**
  - They are sometimes dissolved in organic solvents sprayed over dry plant matter to cause the misleading impression of being as natural as cannabis
- Capsules for oral consumption

90

Synthetic cannabinoids

- Full Agonists at CB1 and CB 2 receptors
  - Have more potency and efficacy than THC (which is a partial agonist)
  - Also more Side effects

91

Synthetic Cannabinoids

- Why Do People use it?
  - If they get dose right (Much like THC)
    - Elevated mood
    - Anti anxiety
    - Increase creativity
  - **Very unpredictable** – very easy to take too much
    - Causes anxiety, hallucinations, sedation
    - Said to "Ruin the effects of THC down the road"
      - Good piece of info to pass on to patients

92

Synthetic cannabinoids

More dangerous than THC

- Higher potency and full agonism leads to:
  - **More intense psychotropic effects and**
  - **Increased severity of the cardiovascular and neurological effects**
    - Severe MS changes
    - seizures
    - fever
    - cardiotoxicity
    - rhabdomyolysis
    - kidney damage
  - The risk of requiring emergency medical treatment after use:
    - 30 times greater than traditional cannabis

- Schwartz M.D., Trecki J., Edison L.A., Steck A.R., Arnold J.K., Gerona R.R. A Common Source Outbreak of Severe Delirium Associated with Exposure to the Novel Synthetic Cannabinoid ADB-PINACA. J. Emerg. Med. 2015;48:573–580. doi:
- Trecki J., Gerona R.R., Schwartz M.D. Synthetic Cannabinoid-related Illnesses and Deaths. N. Engl. J. Med. 2015;373:103–107.
- Tait R.J.C.D., Mountain D., Hill S.L., Lenton S. A Systematic Review of Adverse Events Arising from the Use of Synthetic Cannabinoids and their Associated Treatment. Clin. Toxicol. 2016;54:1–13.
- Adedinsewo D.A., Odewole O., Todd T. Acute Rhabdomyolysis Following Synthetic Cannabinoid Ingestion. N. Am. J. Med. Sci. 2016;8:256

93

More dangerous than THC

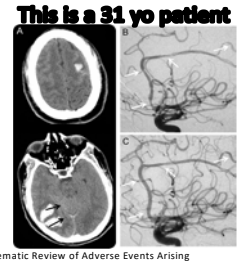
- No CBD
  - CBD is Felt to have a protective effect from the psychosis associated with THC
    - Likely has antagonistic effects on CB1 and CB2 receptors and can limit the effects of THC when both are present
    - Maybe it was natures way of putting a safety net in cannabis
    - AH/Psychosis(can be long lasting- maybe irreversible "**Spice-ophrenia**"),

94

Complication of Synthetic Cannabis Use

- Really bad things can happen with them..
  - Myocardial infarction,
  - Stroke
    - Ischemic, hemorrhagic
  - Acute kidney injury
  - Seizures
  - Psychiatric presentations
    - first episode psychosis, paranoia, self-harm suicide ideation
  - Hyperemesis.
- Most presentations were not serious
  - Tachycardia (≈ 37-77%)
  - Agitation (≈ 16-41%)
  - Nausea (≈ 13-94%)

This is a 31 yo patient



Tait R.J.C.D., Mountain D., Hill S.L., Lenton S. A Systematic Review of Adverse Events Arising from the Use of Synthetic Cannabinoids and their Associated Treatment. Clin. Toxicol. 2016;54:1–13.

95

Mississippi 2015

- Because of lack of regulation and unpredictability
  - There have been "Bad Batches"
- One "Outbreak" from a dangerous variant (MAB-CHMINACA)
  - 17 death
  - 1243 ED visits
    - 10% needed ICU

96

But it Still remained popular Despite the Bad press

- Popular because they are hard to detect on drug screens

97

Still can get them on internet 2022

Herbal Incense

- Now they encourage Vaping
- Or sell in liquid to be sprayed on tobacco
- Flavors such as "Skittles"
- Still labeled as "Not for human consumption"
- Described as a "Legal K2 or Spice"

98

Testing

- Screening
  - Immunoassays available
    - Finds 15 of the most common
- Confirmatory
  - Liquid chromatography-tandem mass spectrometry (LC-MS/MS)
- Military recently expanded their testing for these

99

Treatment

- Supportive
  - IV fluids- prevent/treat AKI rhabdo
  - Benzo's for agitation
  - Neuroleptics for psychosis
- There is a Withdrawal Syndrome
  - Cravings, restlessness, irritability, trouble concentrating, low mood anxiety
  - Treatment
    - ?NAC?

100

Nitrous Oxide

- Dissociative Inhalant
  - Can cause:
    - Sedation
    - Analgesia
    - Depersonalization/derealization
    - Euphoria

101

Nitrous oxide

- Been around and used recreationally since the 1700s
  - Humphrey Davy – a British Chemist shared Nitrous with his friends
- Abused by the British upper class .. known as "laughing gas parties".

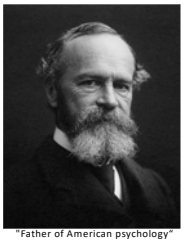
102

Modern Times- we call it Whippits

- Desired Effects
  - "Laughing Gas"
    - Euphoria – "Silliness"
  - Spiritual experiences
  - Sedation
  - Analgesia
  - Dissociation
- Poet Samuel Taylor Coleridge described the effect as
  - "like returning from a walk in the snow into a warm room".

103

- William James reported:
  - inhalation of nitrous oxide resulted in a powerful **spiritual** and **mystical experience** for the user
- I have found that some seek this



"Father of American psychology"
Philosopher

104

Nitrous Oxide – "Whippits"

I Guess some people use a lot of whipped cream

- On amazon
  - Pack of 120 for $66
- Gas stations
- Many corner stores

105

- Can also buy large tanks from internet or medical supply stores

106

Nitrous Oxide

- **Nitrous oxide is legal** and is not subject to DEA purview.
- It is regulated by the FDA
- In some states you can get in trouble for using it
  - In California, inhalation of nitrous oxide "for the purpose of causing euphoria, or for the purpose of changing in any manner one's mental processes," is a criminal offense under its criminal code (Cal. Pen. Code, Sec. 381b

107

Why the Balloons???

- Can't inhale directly
  - Too cold and can cause frostbite of larynx/bronchi
- So Fill the balloons-
  - which allows the chemical to warm up- and be safe and comfortable to inhale

van Amsterdam, Jan; Nabben, Ton; van den Brink, Wim (December 2015). "Recreational nitrous oxide use: Prevalence and risks". *Regulatory Toxicology and Pharmacology*. **73** (3): 790–796.

109

Very Addictive in those genetically predisposed

- **Half life only 1-5 minutes**
  - **Very very compulsive** use for those predisposed to addiction
    - **Telescoping phenomenon happens fast**
  - I have a patient who used 500 cartridges/day and developed paralysis in 1 month of use

110

Health Concerns

Is it Dangerous?

- **1) Frostbite of airway**
- **2) Falls**
  - Dissociation and loss of motor control
- **3) B12 Deficiency** - oxidation of cobalt ions in vitamin B12 and hence cause its inactivation
  - Anemia/agranulocytosis
  - Neurologic
    - Ataxia, weakness, numbness poor proprioception
    - **Myelopathy-**
      - subacute combined degeneration of the spinal cord
    - **Neuropathy**
      - Acute demyelinating neuropathy mimicking Guillain–Barré syndrome
    - **Cognitive decline -Dementia**

Case Reports of Deaths from Hypoxia

Death from Nitrous OxideBjörn BäckströmJ Forensic Sci 2015 Nov;60(6):1662-5.

111

Drug Testing

- No standard drug test can detect inhalant use.
  - No metabolites to look for
  - Half-life way too short

112

Treatment of Nitrous Abuse

- Very Challenging…
  - No FDA approved meds
  - No guidance from literature even for off label use of meds
    - I use Naltrexone
- Heavy on psychosocial interventions that can help cause a new neural pathways to form
  - Build recovery capitol
  - Self help- 12 Step groups

113

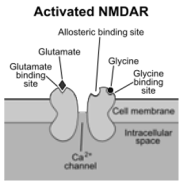
Dextromethorphan

- Cough medication
  - Structurally similar to codeine
    - Although it has no opioid activity
- Is available in more than 140 over-the-counter cough and cold preparations.
  - Often combined with acetaminophen

114

Mechanism of action

- Acts as NMDA antagonist
  - Similar activity to Ketamine, PCP
  - Called "the poor man's PCP"
- Also has low level SNRI activity
  - Serotonin – Norepinephrine reuptake inhibito



115

Dextromethorphan

- It's a powerful Psychoactive medication which profound effects at higher doses
  - Dissociative hallucinogenic states
  - Being studied in combination with bupropion for depression
  - One clinical trial showing effectiveness for treating opioid withdrawal in combo with clonidine

116

Who is using it?

- Slang term is **Robo-tripping**
- Widely abused
  - Especially is populations getting frequently drug tested
    - Not easily detectable
- Highly prevalent in teens
  - Monitoring the Future Survey (NIDA)
    - 3.2% of high school seniors reported abuse in the last 12 months.

117

Bluelight

- "Has a weird resetting effect….helps with tolerance to other drugs"
- "I used it to help mitigate the discomfort of my Kratom taper"

118

Regulations

- Federal
  - FDA advisory panel voted against placing restrictions on dextromethorphan 2010
- State
  - Variable
    - Many states have no regulations
    - Some have age law restrictions (18yo)

119

Where to Buy

- Can Buy pure DXM on Amazon
  - 60- 15mg tabs for $10-13
- Raw Powder form from other online stores
  - Can buy 1kg for $400 on some sites

120

It takes really high doses to get High

DEA Description of Symptoms

- **Plateau 1:**
  - Dose of 100 to 400 milligrams, characterized by restlessness and mild euphoria
- **Plateau 2:**
  - Dose of 200 to 500 milligrams, characterized by impaired balance along with visual and auditory hallucinations (sight and sound)
- **Plateau 3:**
  - Dose of 500 to 1,000 milligrams, characterized by mania, panic, disassociation, altered consciousness, and severe hallucinations
- **Plateau 4:**
  - Dose of more than 1,000 milligrams, characterized by loss of bodily function control, full disassociation, and severe hallucinations and delusions
  - Just about 2 full bottles

- Dextromethorphan abuse leading to assault, suicide, or homicide.*Logan BK, Yeakel JK, Goldfogel G, Frost MP, Sandstrom G, Wickham DJ J Forensic Sci. 2012 Sep; 57(5):1388-94.*

15 mg is normal dose

121

DXM & Tylenol

- Often combined with Acetaminophen
- Because people need very high doses to achieve DXM's dissociative effects…
  - They can easily ingest toxic doses of Tylenol
  - potentially causing acute or chronic liver failure

Also combined with Sorbitol in many formulations- Causes serious diarrhea

122

Withdrawal Syndrome

- Profound withdrawal syndrome can last 3 weeks
  - First Week
    - severe vomiting,
    - muscle aches,
    - diarrhea
  - Followed by:
    - night sweats,
    - insomnia,
    - anxiety,
    - cold intolerance
    - constipation,
- Dextromethorphan psychosis, dependence and physical withdrawal. *Miller SC Addict Biol. 2005 Dec; 10(4):325-7.*

125

Treatment of Withdrawal

- Likely have Hyperadrenergic/glutamatergic state that results from countermeasures body took to chronic NMDA antagonism.
- Case reports of using CIWA to follow
- Watch for HTN, Tachycardia
- Consider Benzos/gabapentin?
- Atomoxetine?

126

Drug Testing

- Can cause false Positive for PCP and maybe opiates on ELISA
- There are ELISA screening tests and GCMS confirmatory tests
  - Hard to find
  - Most Rapid tests don't look for DXM

127

Dietary Supplements not DEA, FDA regulated

- 50% of people use them
  - Weight loss
  - Sexual enhancement
  - Muscle building
- They cause a whole lot of ER visits
  - 23,000 emergency department visits
  - 2000 hospitalizations in the United States each year

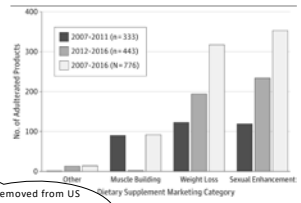
Why?

Unapproved Pharmaceutical Ingredients Included in Dietary Supplements Associated With US Food and Drug Administration Warnings. Jenna Tucker, MPH *JAMA Network Open.* 2018;1(6):e183337. doi:10.1001/jamanetworkopen.2018.3337

128

Unapproved Pharmaceutical Ingredients Included in Dietary Supplements

- 718/746 (96%) of products tested were adulterated (contained chemicals not on list)
  - Sexual enhancement supplements
    - 81.3% adulterated
    - **sildenafil most common**
  - Weight loss dietary supplements
    - 85% adulterated
    - Sibutramine (Meridia)
    - laxatives (phenolphthalein)
  - Muscle building products
    - 89% contained Synthetic steroids or steroid-like ingredients



Removed from US market by FDA in 2010 for CV SE's – (SNRI – like effexor)

129

So Be Careful…..

- So Be Careful which Dietary supplements you use
- Ask your patients which ones they are using
- Many contain all kinds of interesting stuff

130

Summary

- We are living in Challenging times
- People are escaping in many ways
- There are "legal Highs" out there
  - Some are dangerous
  - Some are addictive
- Lack of regulations
  - Like a Box of chocolates
    - Contaminants -
  - Unpredictability
- Lack of studies
  - In the dark on treatment

132

Summary

- For Some that are genetically predisposed to addiction
  - They experience the "Whack – A – Mole" phenomenon- The Bup may help them avoid opiates…..but…..
    - Finding Creative – "Safe" legal ways to escape
  - These people need a wholistic recovery to break this cycle
    - Medications are necessary but not sufficient
    - Growing body of evidence that neurobiologic changes need to happen
      - New theory of using endogenous dopamine release- from normal pleasurable experiences – repeated over and over and over
        - Builds new neural pathways

Recovery Capital

Encourage and follow positive patterns and experiences in addicted patients lives—builds new more functional neural pathways

133

Ask your patients about these drugs

- You might be surprised at how many admit to using them

134

Designer BZD's

- **DARK WEB**
- Not approved for medical use in any country
  - Very inexpensive
    - 10 cents/dose
  - Very Euphorogenic
- **Turn Screening UDS +**
- **GC/MS negative**
- Clonazolam, Bromazolam, norflurazepam, flonazepam, nifoxipam

135

Designer Benzos

- Sold as "Research Chemical" not for human consumption

136

Designer benzos- 2021 Review Article -Italy

- Cat and Mouse game between organized crime and law enforcement
  - Non-prohibited benzodiazepines are introduced onto the global drug market
  - scheduled as rapidly as possible by international authorities
  - continuously modified to avoid legal sanctions and drug seizures

Review Designer Benzodiazepines: A Review of Toxicology and Public Health Risks Pietro Brunetti *Pharmaceuticals* **2021**, June - *14*(6), 560; **https://doi.org/10.3390/ph14060560**

137

Designer benzos- 2021 Review Article

- List that had sufficient data to report on:
  - 3-hydroxyphenazepam
  - adinazolam
  - Clonazolam
  - Etizolam
  - Deschloroetizolam
  - Diclazepam
  - Flualprazolam
  - Flubromazepam
  - Flubromazolam
  - Meclonazepam
  - phenazepam
  - pyrazolam

138

Designer benzos- 2021 Review Article

- 49 Reports compiled from 2008-2021
  - 141 deaths
- Etizolam, flualprazolam flubromazolam and phenazepam were implicated in the majority of adverse-events.

139

Designer Benzo's Trends

- Compared with classical BZD, these compounds produce strong sedation and amnesia, and they increase the risk of respiratory depression and death when used in combination with other CNS depressants

140

Designer Benzo's Trends

- Clonazolam, that is akin to a combination of alprazolam and clonazepam, is so potent that it needs to be dosed at the microgram level using a high-precision scale to prevent accidental overdose. It can be bought on the Internet as a "**research chemical"** and shipped virtually anywhere.

141

Bath Salts – Synthetic Cathinones

- Synthetic Cathinones
  - Sold as "Bath Salts" or "Plant food"
  - Labeled "not for human consumption
  - Used to be Available everywhere

142

What's a cathinone?

- Cathinones Are naturally occurring amphetamine analogs found in the leaves of Khat plant
  - This is a powerful plant
    - 10x More Powerful than Cocaine

People chew the leaves in some middle eastern countries Esp Yemen

143

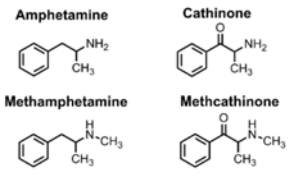
Synthetic Cathinones

How do people use them?

- Powder
  - Snorted
    - Onset 10-20 min
    - Duration 1-2 hrs
  - Ingested
    - Onset 15-45 min
    - Duration 2-4 hrs
  - IV use
    - Peak 10 min
    - Duration 30 min

145

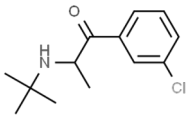
- Chemically VERY VERY similar to methamphetamine



146

FYI

- Buproprion
  - Is a synthetic cathinone derivative
  - Abused
    - Snorted and injected



147

Bath Salts

- Synthesized since the 1920s
- Many different forms—these are some of the most common
  - butylone,
  - dimethylcathinone, ethcathinone,
  - ethylone,
  - 3- and 4-fluoromethcathinone,
  - mephedrone,
  - **methedrone,**
  - **methylenedioxypyrovalerone (MDPV),**
  - methylone,
  - pyrovalerone

148

Many Say "The wave is over"

- MDPV and most others became illegal around 2014 –
  - US, UK, AUS, China
- Much harder to get
- Newer "Bath Salts" available are far less effective and often with contaminants
- Can no longer be sold on the internet
- Since they're both illegal now and synthetic cathinones are Harder to make than methamphetamine – most don't bother any more

149

They came in pretty packages Sold in Head Shops

150

Bath Salts

- Big Problem from 2011-2014
- Lots of press about psychotic people doing disturbing things
  - Homeless man feasting on the face of another homeless man
- Most common synthetic cathinones (MDPV the most common) became illegal in 2014

151

Current Availability

- Head Shops –
  - Large chains won't sell anymore
  - Small shops sometimes keep behind the counter for "special customers"
- Gas Stations
  - Most don't want to take the chance because of bad publicity

152

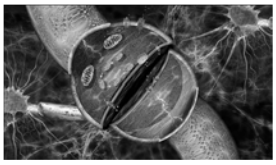
Nice review Article

- The Toxicology of Bath Salts: A Review of Synthetic Cathinones Jane M. Prosser & Lewis S. Nelson, J. Med. Toxicol. (2012) 8:33–42

153

Bath Salts Mechanism of Action

- Inhibit reuptake of NE and DA
- Also cause release from intracellular stores
- Some also have serotonergic activity



- Remember– there are many different "bath salts" all with different pharmacology

154

Why people Use them

- Good Party Drug
  - Increased energy,
  - Empathy,
  - Openness,
  - Increased libido
  - Sexual enhancement
  - Euphoria
- "Its better than cocaine"
  - When asked to compare mephedrone use to cocaine
    - 60–75% reported a longer duration of effect and
    - 50% reported a "better" effect than cocaine

Newcombe R (2009) Mephedrone: use of mephedrone (M-Cat, Meow) in Middlesbrough. Lifeline, Manchester, UK

155

Bath Salts

- Psychiatric Side Effects
  - Agitation and aggression (28-66%)
  - Severe Anxiety
  - Severe Dysphoria—suicides
  - Disembowelment of Kentucky Senators Son
  - AH, Paranoia (People are invading their space)
- Medical Side Effects (Its Bad)
  - Hyperthermia
  - Hyponatremia
  - Rhabdo/Renal failure
    - Dialysis common
  - **Excited Delirium**
    - Like excited catatonia
  - 1/3 of Patients ended up in ICU
  - Multiple Deaths while incarcerated

Psychosis can be persistent and refractory

157

Treatment

- Mostly supportive
  - Hydration
  - Patients w sympathomimetic toxidrome (agitation, psychosis, significant tachycardia, hypertension, and seizures)
    - should be treated with **benzodiazepines**
- Treat the addiction
  - Contingency management
  - ?Buproprion?

158

Bath Salts Weird Fact

- **Sensitization** (Kindling) effect
  - More effective after more use

159

Testing

- Immunoassay Drug screen for some….
  - **methedrone, methylenedioxypyrovalerone (MDPV),**
- **GCMS**

161

Nitrous Oxide

- 800 BC - 392 AD Oracle at Delphi inhales Ethylene vapors from fissures in the rock beneath the temple. The oracle would answer questions or make prophesies after entering a "trance" or being in a state of "frenzy."
- 1275 Ether was named "sweet vitriol" when it was discovered by Spanish chemist Raymundus Lullius
- 1772 Nitrous Oxide gas was first discovered by English scientist Joseph Priestley.

162

- 1831 – 1832 Chloroform was discovered independently by 3 scientists: Samuel Guthrie, Justus von Liebig, and Eugene Soubeiran. Originally used as treatment for asthma.
- 1840 Ether used as a social lubricant for parties called "Ether Frolics."
- Late 1940s First known outbreak of gasoline sniffing in Warren, Pennsylvania.
- 1950s Reports of many cases of deliberate inhalation of gasoline fumes by young people in the US, Australia, India, and Great Britain.
- 1959 Earliest known references to glue-sniffing in either medical or popular literature.
- 1960s An increasing number of newspaper articles report adolescents sniffing airplane glue.
- 1961 – 1965 Glue sniffing epidemic in Denver. The epidemic may have been caused by hyperbolic media reports about the activity. Reports of glue sniffing soon spread to other U.S. cities like New York and Salt Lake City.

163

Adhesives	model airplane glue, rubber cement, household glue
Aerosols	spray paint, hairspray, air freshener, deodorant, fabric protector
Solvents and gases	nail polish remover, paint thinner, type correction fluid and thinner, toxic markers, pure toluene, cigar lighter fluid, gasoline, carburetor cleaner, octane booster
Cleaning agents	dry cleaning fluid, spot remover, degreaser
Food products	vegetable cooking spray, dessert topping spray (whipped cream), whippets

164

Toluene- "Huffing"- Sniffing Glue

- Toluene is present in many industrial solvent
  - Used in the fabrication of various products such as paints, paint thinners, glues, adhesives and cleaning products
  - Also Benzene, Gasoline

165

Mechanism

- Predominant activity is in potentiating the function of inhibitory ion channels:
  - GABAa
  - Glycine
  - Serotonin
- Also inhibits excitatory ion channels:
  - NMDA- glutamate
  - nicotinic acetylcholine receptors (nAChRs)

166

Toluene –Why people do it

- The "high" feels similar to alcohol intoxication
  - Loss of inhibition
  - slurred speech
  - Euphoria
  - dizziness
  - disorientation.

167

Complications of Huffing

Severe Stuff

- Hypokalemia
  - Including Periodic paralysis
  - Arrythmias
- Metabolic acidosis
- Liver injury
- Renal Failure
  - distal renal tubular acidosis type 1
  - Rhabdomyolysis
- Mental status changes
- Chronic neurocognitive deficits
  - psychoorganic syndrome
- Parkinson's like syndrome
- Chronic toxic encephalopathy
  - cerebellar symptoms such as ataxia, tremors nystagmus
  - White matter changes on MRI

Acute toluene intoxication–clinical presentation, management and prognosis: a prospective observational study Carlos Rodrigo Camara-Lemarroy BMC Emerg Med. 2015; 15: 19.

168

- Alarmingly high death rate in patients presenting with intoxication
  - 15%
  - Severe acidosis and renal failure

Acute toluene intoxication–clinical presentation, management and prognosis: a prospective observational study Carlos Rodrigo Camara-Lemarroy BMC Emerg Med. 2015; 15: 19.

169

Treatment

- Correction of the electrolytic and acid base alterations
- Aggressive hydration

170

Alykl Nitrites:

Poppers

- Amyl Nitrite – prescription for angina, glass ampule that is broken or "popped" then inhaled
- Butyl and Isobutyl Nitrite – "Room Deodorizers", "Liquid Incense" – sniffed

Effects:
Smooth muscle relaxation and peripheral dilation, flushing: WARMTH
Increase in intracranial pressure: RUSH
Prolongs penile erections and sphincter relaxation: SEXUAL ENHANCEMENT

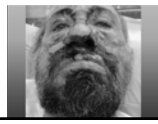
171

172

Toxicity with Nitrites

- **Methemoglobinemia** (Impaired oxygen delivery to tissue)
  - SXS: headache, fatigue, dyspnea, and lethargy
  - Methemoglobin levels >70%: respiratory depression, AMS, shock, seizures, death
- Treatment: High dose oxygen and Methylene Blue IV

- **Burn Injuries:**
  - Nitrites are highly flammable



173

Hydrocarbons: Volatile Solvents

Huffing, Bagging, Sniffing, Spraying

- **Primarily household and industrial products:**
  - Aliphatic compounds: butane, propane, kerosene, and mineral seal oil
  - Aromatic hydrocarbons (benzene, toluene, and xylene): glues, adhesives, acrylic paints, paint thinners, and automotive products
  - Halogenated hydrocarbons (solvents): degreasers, spot removers, freons, fire extinguishers
  - Mixtures: Gasoline

For full list of volatile compounds of abuse see of ASAM Essentials of Addiction Medicine p. 104 Table 16-1 : Pharmacologic Classification of Abused Inhalants

174

- Lapin I. Phenibut (beta-phenyl-GABA) a tranquilizer and nootropic drug. CNS Drug Rev. 2001;7:471-481.
- 2. Sankary S, Canino P, Jackson J. Phenibut overdose. Am J Emerg Med. 2017;35(3):516.
- 3. O'Connell CW, Schneir AB, Hwang JQ, Cantrell FL. Phenibut, the appearance of another potentially dangerous substance in the United States. Am J Med. 2014;127:e3-e4.
- 4. Li CK, Sundararajan K. An uncommon case of phenibut toxicity in an intensive care unit. Int J Med Pharma Case Rep. 2015;5:1-6.
- 5. Downes MA, Berling IL, Mostafa A, Grice J, Roberts MS, Isbister GK. Acute behavioural disturbance associated with phenibut purchased via an internet supplier. Clin Toxicol. 2015;53:636-638.
- 6. Högberg L, Szabó I, Ruusa J. Psychotic symptoms during phenibut (beta-phenyl-gamma-aminobutyric acid) withdrawal. J Substance Use. 2013;18:335-338.
- 7. Australian Department of Health Therapeutic Goods Administration. Phenibut. https://www.tga.gov.au/book-page/33-phenibut.
- 8. van Bree JB, Heijligers-Feijen CD, de Boer AG, Danhof M, Breimer DD. Stereoselective transport of baclofen across the blood-brain barrier in rats as determined by the unit impulse response methodology. Pharm Res. 1991;8(2):259-262.
- 9. Ahuja T, Mgbako O, Katzman C, Grossman A. Phenibut (β-Phenyl-γ-aminobutyric Acid) Dependence and Management of Withdrawal: Emerging Nootropics of Abuse. Case Rep Psychiatry. 2018;2018:9864285.
- 10. Samokhvalov AV, Paton-Gay CL, Balchand K, Rehm J. Phenibut dependence. BMJ Case Rep. 2013;2013.
- 11. Wong A, Little M, Caldicott D, Easton C, Andres A, Greene SL. Analytically confirmed recreational use of phenibut (β-phenyl-γ-

175

Salvia Divinorum

- Plant Native to Mexico
- Kappa Opiate receptor Agonist
- D2 partial agonist
- Induces Hallucinations
  - Spiritual Visions in larger doses
  - like Yoga, meditation or trance in smaller doses
- Scheduled in many countries
  - Not in US
  - Illegal in some states

176

- Salvinora A
  - Dissociative

177

GHB

- Gamma-hydroxybutyric acid
  - Naturally occuring neurotransmitter
  - Has its own receptor
    - Stimulant, euphoric activity
  - Also weak agonist at GABAb
  - Precursor to GABA, Glutamate

183

GHB

- Sodium Oxybate (Zyrem—Salt of GHB)
  - GABAb receptor
  - Increases slow wave sleep
    - Indirectly increases GH
  - Tx of Narcolepsy, Alcoholism, fibromyalgia

184

Tianeptine

- Marketed as “Stablon” in
  - 12.5 mg doses
  - Street doses 500 mg to 3000 mg
- Tianeptine sodium is injected
- Tianeptine freebase is orally ingested

185

- Antidepressant and anxiolytic fax with lack of sedation anticholinergic and cardiovascular side effects
- It axis and atypical agonist at the mu opioid receptor
- Overdoses are reversed by naloxone
- NOWS newborns resolves with morphine

186

Lab Screening

Confidentiality and Ethical Considerations for Substance Use and Mental Health Providers

—Andrew Kurtz, LMFT, Pacific Mental Health Awareness Training, UCLA Integrated Substance Abuse Programs

Ethical Issues Facing Substance Use Disorder and Mental Health Providers

Andrew Kurtz, LMFT

Pacific Southwest Addiction Technology Transfer Center
UCLA Integrated Substance Abuse Programs
www.psattc.org
www.uclaisap.org

1

Confidentiality & Integrated Care

Involves:

- HIPAA
- 42 CFR, part 2
- State-based confidentiality policies

- Information can be shared across agencies when proper precautions are taken.

2

2

HIPAA

- Health Insurance Portability and Accountability Act of 1996
- Administrative simplification – a way to standardize information sharing within a complex healthcare system.
- Protects confidentiality and security of Protected Health Information (PHI).
- Sets *minimum* privacy protections for all health information held by: Health Plans, Healthcare Providers and those who transmit PHI (billing, administration).
- Allows the sharing of info between organizations for the purpose of Healthcare coordination.

3

42 CFR Part 2

The regulations governing confidentiality of alcohol and drug abuse patient records

5

42 U.S. Code 290dd
42 CFR Part 2

- First issued 1975, revised 1987
- Designed to help deal with the stigma of addiction.
- Requires notification of confidentiality, consent forms, prohibition of re-disclosure
- Imposes restrictions upon the disclosure and use of patient records that are maintained in connection with the performance of any *federally-assisted* alcohol and drug treatment program.

6

Confidentiality in Substance Use Treatment Settings

Confidentiality is necessary because without that guarantee, many individuals with substance use problems would be reluctant to participate fully in treatment.

7

Provision	What Changed?	Why Was This Changed?
Consent Requirements	An SUD patient may consent to disclosure of the patient's Part 2 treatment records to an entity (e.g., the Social Security Administration), without naming a specific person as the recipient for the disclosure.	To allow patients to apply for benefits and resources more easily, for example, when using online applications that do not identify a specific person as the recipient for a disclosure of Part 2 records.

15

Full List of 42 CFR Part 2 Changes

https://www.samhsa.gov/newsroom/press-announcements/202007131330

16

- Can you leave a message for patients at their home, either on an answering machine or with a family member?
- Can a family member pick up a prescription for the patient?
- Does HIPAA permit health care facilities to inform visitors or callers about a patient's location in the facility and general condition?
- Can the fact that a patient was "treated and released" or that the patient has died be released?
- If my family or friends call about my condition, will they have to give proof of who they are?

SOURCE: HHS.gov, HIPAA Disclosures to Family and Friends

17

What Are Ethics?

- Standards that govern the conduct of a person
- A "human reflecting self-consciously on the act of being a moral being. This implies a process of self-reflection and awareness of how to behave as a moral being."
- Some definitions are dictated by law, some by individual belief systems, some by religion, or a mixture of all three.

18

Where do ethics come from?

- Ethics generally come from shared morals reflecting the values and judgments about "right" and "wrong" by society in general, and often by a specific group or organization

19

Professional Conduct & Responsibilities

- PURPOSE
  - Preserve the integrity of the organization and its programs
  - Promote professionalism
  - Ensure the provision of quality services

20

Professional Conduct & Responsibilities

- PRACTICE
  - Knowledge of policies
  - Security and supervision
  - Position responsibilities
  - Relations with other agencies
  - Relations with other employees
  - Relations with clients
  - Policy against sexual harassment

21

Ethical Guidelines

- Ethical standards reflect:
  - Your role to the client
  - Your philosophy of care
  - Your role on the team and within the program

22

Ethical Behavior

"behavior conforming to accepted principles of right and wrong that governs conduct of a profession or an organization"

23

From the NAADAC Code of Ethics

Principle 1: "Addiction Professionals understand and accept their responsibility to ensure the safety and welfare of their client, and to act for the good of each client while exercising respect, sensitivity, and compassion. Providers shall treat each client with dignity, honor, and respect, and act in the best interest of each client."

24

Basic Ethical Principles

- Beneficence: to "do good" for others
  - Ultimately we want to improve and enhance the welfare of the people we serve
- Non-maleficence: "Do no harm"
  - Most often stated in terms of sexual or financial exploitation of patients
  - What about abstinence-based treatment approach vs. risk reduction approach?

25

Basic Ethical Principles

- Justice: assumes impartiality and equality
  - Means that a clinician will treat all clients equally and give everyone their due portion of services
  - Are there clients you instinctively want to avoid, or those you favor?
- Autonomy: people have the right to make their own choices and live their lives as they choose as long as their actions do not interfere with others
  - How does this become an issue in substance use disorder treatment?

26

Basic Ethical Principles

- Each healthcare discipline's professional organization has an ethics code which we agree to abide by as members of that organization and profession (i.e. APA, AMA, NASW, NAADAC)
- However, not all ethically-challenging situations are easily resolved

27

A client states that she sometimes picks her kids up at school after drinking in the afternoon. How do you handle this disclosure?

28

CALIFORNIA CERTIFIED AOD COUNSELORS – UNIFORM CODE OF CONDUCT

FINAL VERSION JUNE 29, 2009

1. **Securing a certification or registration by fraud, deceit, or misrepresentation** on any application submitted to the certifying organization whether engaged in by an applicant for certification or registration or in support of any application for certification or registration.
2. **Administering to himself or herself any controlled substance…or using any alcoholic beverage to the extent, or in a manner, as to be dangerous or injurious** to the person applying for a certification or holding a registration or certification, or to any other person, or to the public, or, to the extent that the use **impairs the ability** of the person applying for or holding a registration or certification to conduct with safety to the public the counseling authorized by the registration or certification.

29

CALIFORNIA CERTIFIED AOD COUNSELORS – UNIFORM CODE OF CONDUCT

FINAL VERSION JUNE 29, 2009

3. **Gross negligence or incompetence** in the performance of alcohol and other drug counseling.
4. **Violating, attempting to violate, or conspiring to violate any regulation adopted by ADP**.
5. **Misrepresentation as to the type or status of certification** or registration held by the person, or otherwise misrepresenting or permitting misrepresentation of his or her **education, professional qualifications**, or professional affiliations to any person or entity, and failure to state proper certification or licensure initials and numbers on business cards, brochures, websites, etc.

30

CALIFORNIA CERTIFIED AOD COUNSELORS – UNIFORM CODE OF CONDUCT

FINAL VERSION JUNE 29, 2009

6. **Impersonation of another** by any counselor or registrant, or applicant for a certification or registration, or, in the case of a counselor, allowing any other person to use his or her certification or registration.
7. **Aiding or abetting any uncertified or unregistered person** to engage in conduct for which certification or registration is required.
8. **Providing services beyond the scope** of his/he registration or certification as an AOD counselor or his or her professional license, if the individual is a licensed counselor as defined in Section 13015.
9. **Intentionally or recklessly causing physical or emotional harm to any client.**

31

CALIFORNIA CERTIFIED AOD COUNSELORS – UNIFORM CODE OF CONDUCT

FINAL VERSION JUNE 29, 2009

10. **The commission of any dishonest, corrupt, or fraudulent act substantially** r**elated to the qualifications, functions, or duties** of a counselor or registrant.
11. **Engaging in sexual relations** with a client or with a former client within **two years from the termination date** of therapy with the client, soliciting sexual relations with a client, or committing an act of sexual abuse, or sexual misconduct with a client, or committing an act punishable as a sexually related crime, if that act or solicitation is substantially related to the qualifications, functions, or duties of an alcohol and other drug counselor.

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CALIFORNIA CERTIFIED AOD COUNSELORS – UNIFORM CODE OF CONDUCT

FINAL VERSION JUNE 29, 2009

12. **Engaging in a social or business relationship** with clients, program participants, patients, or residents or other persons significant to them while they are in treatment and exploiting former clients, program participants, patients, or residents.
13. **Verbally, physically or sexually harassing, threatening, or abusing** any participant, patient, resident, their family members, other persons who are significant to them, or other staff members.
14. **Failure to maintain confidentiality**, except as otherwise required or permitted by law, including but not limited to Code of Federal Regulations, Title 42, Part 2.

33

CALIFORNIA CERTIFIED AOD COUNSELORS – UNIFORM CODE OF CONDUCT

FINAL VERSION JUNE 29, 2009

15. **Advertising that** in reasonable probability will **cause an ordinarily prudent person to misunderstand or be deceived**; makes a claim either of professional superiority or of performing services in a superior manner, unless that claim is relevant to the service being performed and can be **substantiated with objective scientific evidence**; makes a scientific claim that cannot be substantiated by reliable, peer reviewed, published scientific studies.
16. **Failure to keep records** consistent with sound professional judgment, the standards of the profession, and the nature of the services being rendered.
17. **Willful denial of access to client records** as otherwise provided by law.

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Ethical Issues in Substance Use Treatment

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ETHICS

- **Ethical behavior requires more than a familiarity with laws and the profession's code of ethics.**
- **Sensitivity to the moral dimensions of counseling, including professional ethics and personal principles and philosophy consistent with the profession**
- **Understanding your agency's policies and procedures for client services (conflict of interest, referrals, chain of command, roles, responsibilities)**

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Situations to Consider

After shadowing a session with a supervisor, the supervisor asks you to complete the progress note for them because it would be "good practice for you" and they'll just add their name later.

37

Boundaries and Dual Relationships

This section adapted with permission from Zur, 2019
https://www.zurinstitute.com/boundaries-dual-relationships/

38

What are Boundaries?

- Boundaries in counseling define the counselor-client relationship
- Some boundaries are drawn *around* that relationship, i.e. concerns about locations of sessions, fees, and confidentiality/privacy of the relationship
- Other boundaries are drawn *between* the counselor and client, including counselor self-disclosure, physical contact, giving and receiving gifts, contact outside the counseling session, use of language, type of clothing, and proximity of the counselor & client during sessions

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Boundary Crossings and Boundary Violations

- Boundary *crossings* refer to any deviations from traditional, strict, "only in the office" therapeutic relationship parameters
  - They are not always harmful
- Boundary *violations* occur when counselors violate or exploit their clients, causing harm to them
  - They often happen in the context of exploitative dual relationships, such as sexual or business contacts with current clients, or people who were clients recently

40

Boundary Crossings

- One of the factors determining whether a boundary crossing is helpful or harmful is the clinician's theoretical orientation
- Orientations like humanistic, existential, cognitive-behavioral, or group therapy view some boundary crossings as a helpful part of therapy, while psychodynamically oriented counselors/therapists may view them as not helpful or inappropriate

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Boundary Crossings

- Like dual relationships, boundary crossings are normal, unavoidable and expected in small communities such as rural or the military, within universities and interdependent communities such as the deaf community, various ethnic groups, and the LGBTQ community, etc.
- The more communally-oriented cultures, such as Hispanic or Native American, are more likely to expect boundary crossings and may frown upon a rigid implementation of boundaries

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Boundary Crossings

- Not all boundary crossings constitute dual relationships, but all dual relationships are boundary crossings and potentially violations
  - What about making a home visit when a client is sick or injured?
  - Taking a depressed client for a walk while conducting a session (if you can ensure confidentiality)?
  - Attending a client's wedding because it would be very meaningful to them that you be there (standing in the back and not interacting with other guests)?
  - Attending a client's 1-year cake ceremony at an AA mtng?

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Boundary Crossings

- Dual relationships might include attending the same church, regularly attending the same PTA meeting at your child's school, or playing in the same recreational league
- These are boundary crossings, but not necessarily boundary violations, particularly in a small or rural community
- Boundary crossings with certain clients, however, like those with borderline personality disorder, must be approached with extreme caution. Why?

44

Boundary Crossings

- Boundaries need to be understood within the context of counseling/therapy. These include:
  - Client factors
  - Setting
  - Therapy
  - Therapists/counselors

45

SELF DISCLOSURE: WHEN IS IT OK?

46

THINGS TO CONSIDER?

- **What is your goal in providing the client with this information?**
- **What will the information mean to the client?**
- **Are you sending confusing messages?**
- **Are you sure that it is meeting a client need and not a personal need?**
- **Is there another way to accomplish your goal without personal disclosure?**
- **Are you okay with EVERYONE in the clinic knowing the information?**

47

What is the client REALLY asking?

- Alternate Strategies?
  - Deflect
  - Redirect
  - Answer another question
  - Use the third person

48

What Type of Relationship?

- Social/Friendship
- Business/Bartering
- Gift-giving
- Counseling to family/friends
- Romantic/Sexual
- Dual or Multiple Relationship

49

Just before a group session, a client approaches you and offers you a cup of coffee. How do you respond?

50

Dual Relationships

- Sexual dual relationships
  - Counselor is in a sexual relationship with a current or former client
  - These are always unethical and usually illegal
  - Most helping professions prohibit romantic or sexual relationships for at least two years after treatment termination, but even then only under "unusual circumstances"
  - Also may not accept as a client anyone with whom the counselor has had a previous romantic, sexual, or social relationship
  - Not possible to maintain objectivity and avoid exploitation

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Sexual Relationships: Legal and Ethics Issues

- **Loss of objectivity to provide appropriate treatment or exercise appropriate judgment**
- **Ethics code for helping professions – unprofessional conduct, unethical, illegal**
- **Damage to the client's mental health**
- **Loss of trust in the helping professions for Ct.**
- **Ct. focus is on you rather than on him/herself**
- **May become confused about motivations to change (e.g., desire to keep the relationship going)**

52

Situations to Consider

A client who is graduating from your program comes in on her last day and wants to give you a gift. How do you handle the situation?

53

NAADAC Language on Dual/Multiple Relationships

- "Addiction Professionals shall make every effort to avoid multiple relationships with a client. When a dual relationship is unavoidable, the professional shall take extra care so that professional judgment is not impaired and there is no risk of client exploitation.
- Such relationships include, but are not limited to, members of the Provider's immediate or extended family, business associates of the professional, or individuals who have a close personal relationship with the professional or the professional's family."

Source: NAADAC Code of Ethics, 2016

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NAADAC Language on Dual/Multiple Relationships

- "When extending these boundaries, Providers take appropriate professional precautions such as informed consent, consultation, supervision, and documentation to ensure that their judgment is not impaired and no harm occurs. Consultation and supervision shall be documented."

NAADAC Code of Ethics, 2016

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HOW TO HANDLE CLIENTS WHO WANT A DIFFERENT TYPE OF RELATIONSHIP?

- **Set firm limits**
- **Explain why you are setting the limits**
- **Try not to be rejecting as you set clear limits**

56

An Ethical Decision-Making Process

1. Identify the ethical dilemma
2. Which sections of the NAADAC or other ethics codes may apply to the situation?
3. Consult with a clinical supervisor or experienced colleague
4. Determine if there are any potential legal concerns
5. Generate a list of potential solutions and courses of action

Source: NAADAC , 2018

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An Ethical Decision-Making Process

6. Evaluate each option to identify potential consequences of acting on the possible solutions
7. Implement the chosen course of action
8. Document the entire situation, including the ethical decision-making process
9. Analyze the implementation of the chosen course of action
10. Reflect on the outcome and re-assess if implementation was not successful

Source: NAADAC , 2018

58

Thank You For Your Time!

Andrew Kurtz, MFT
askurtz@mednet.ucla.edu

uclaisap.org psattc.org
UCLA Integrated Substance Abuse Programs
Pacific Southwest Addiction Technology Transfer Center

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59

Technologies – New Addictions. What have we learned about behavioral addiction?

—Mateus Gola, Ph.D., UCSD

New Technologies, New Addictions

Lecture

Mateusz Gola, PhD

1

Disclosures:

UC San Diego - Associate Research Professor

PAN - Associate Professor of Psychology at Polish Academy of Sciences

PREDICT WATCH - Co-founder and Advisor

DrGola.online - Online clinical practice

2

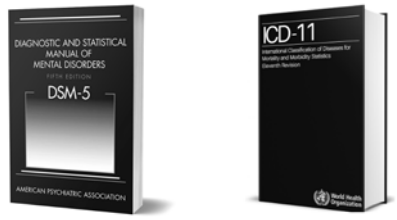
Question:

Can we get addicted to anything?

Which behaviors can be addictive?

a. Computer Gaming
b. Shopping
c. Work
d. Porn watching
e. Skydiving
f. Running

3



4

Diagnostic criteria: Gambling Disorder (6C50)

Description

- Gambling disorder is characterized by a pattern of **persistent or recurrent** gambling behavior, which may be **online** (i.e., over the internet) **or offline**, manifested by:

1. **Impaired control** over gambling (e.g., onset, frequency, intensity, duration, termination, context);
2. increasing priority given to gambling to the extent that gambling **takes precedence over other life interests and daily activities**
3. **continuation or escalation** of gambling **despite the occurrence of negative consequences**.

- The pattern of gambling behavior **may be continuous or episodic and recurrent**.
- The pattern of gambling behavior **results in significant distress or in significant impairment in personal, family, social, educational, occupational or other important areas of functioning**.
- The gambling behavior and other features are normally **evident over a period of at least 12 months** in order for a diagnosis to be assigned, although the required duration may be shortened if all diagnostic requirements are met and symptoms are severe.

Exclusions

- Bipolar type I disorder (6A60)
- Bipolar type II disorder (6A61)
- Hazardous gambling or betting (QE21)

5

6C51 Gaming Disorder

- **Description**
- Gaming disorder is characterized by a pattern of persistent or recurrent gaming behaviour ('digital gaming' or 'video-gaming'), which may be online (i.e., over the internet) or offline, manifested by:
- 1. impaired control over gaming (e.g., onset, frequency, intensity, duration, termination, context);
- 2. increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities;
- 3. continuation or escalation of gaming despite the occurrence of negative consequences.
- The pattern of gaming behaviour may be continuous or episodic and recurrent.
- The pattern of gaming behaviour results in marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning.
- The gaming behaviour and other features are normally evident over a period of at least 12 months in order for a diagnosis to be assigned, although the required duration may be shortened if all diagnostic requirements are met and symptoms are severe.
- **Exclusions**
- Hazardous gaming (QE22)
- Bipolar type I disorder (6A60)
- Bipolar type II disorder (6A61)

6

Addiction in Extreme Sports: An Exploration of Withdrawal States in Rock Climbers

Robert M Heirene [1], David Shearer [1], Gareth Roderique-Davies [1], Stephen D Mellalieu [2]

Argentine tango: Another behavioral addiction?

REMI TARGHETTA[1#], BERTRAND NALPAS[1,2*#] and PASCAL PERNEY[1]

[1]Service d'Addictologie, CHU Caremeau, Nîmes, France
[2]Inserm U1016, Nîmes, France

7

Compulsive sexual behaviour disorder (6C72)

In 2019 World Health Organization (WHO) recognized **Compulsive sexual behaviour disorder** (**CSBD**) characterized by:

1.) **persistent** pattern of **failure to control** intense, repetitive **sexual impulses or urges** resulting in repetitive sexual behaviour.
2.) **neglecting health and personal care or other interests, activities and responsibilities**;
3.) numerous **unsuccessful efforts to significantly reduce** repetitive **sexual behaviour**;
4.) continued repetitive **sexual behaviour despite adverse consequences** or deriving little or no satisfaction from it.

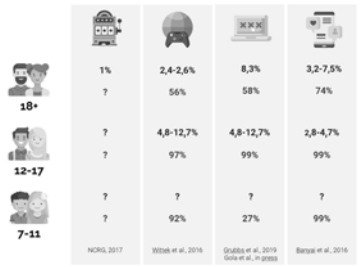
The pattern of failure to control intense, sexual impulses or urges and resulting repetitive sexual behaviour is **manifested over** an extended period of time (e.g., **6 months or more**), and **causes marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning**.

Distress that is entirely related to moral judgments and disapproval about sexual impulses, urges, or behaviours **is not sufficient to meet this requirement**.

WHO, 2019: https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/1630268048

8

Prevelance



problematic users
users

Gola & Skorko, in prep.

9

Question:

- How do we recognize addiction:
  - Repeated or continuous use / behaviour
  - Impaired ability to control use / behaviour
  - Increasing priority given to use over other activities
  - Use despite harm or negative consequences
  - Tolerance & withdrawal symptoms

10

Question:

- Why do we loose control over our behavior / substance use?

11

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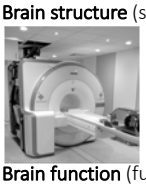
Studies of neural mechanisms

Brain structure (structural MRI, VBM)

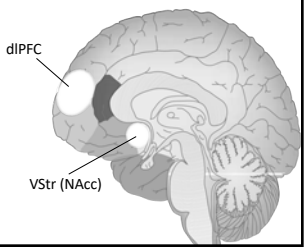


Brain function (functional MRI)

12

Neural mechanisms of control

Impulsive behavior vs Control



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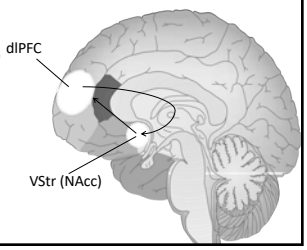
Neural mechanisms of control

Impulsive behavior vs Control

Appetitive cue



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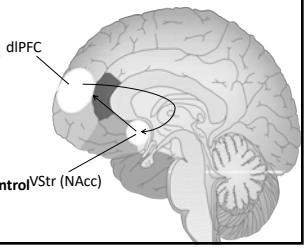
Neural mechanisms of control

Impulsive behavior vs Control

Appetitive cue

Cognitive control



15

- **98 heterosexual male participants** (age: 24-60; **M = 34.5, SD = 6.48**).

Draps, M., Sescousse, G., Potenza, M. N., Marchewka, A., Duda, A., Lew-Starowicz, M., ... & Gola, M. (2020). Gray matter volume differences in impulse control and addictive disorders—an evidence from a sample of heterosexual males. *The Journal of Sexual Medicine*, *17*(9), 1761-1769.

16

Brain structure (VBM)

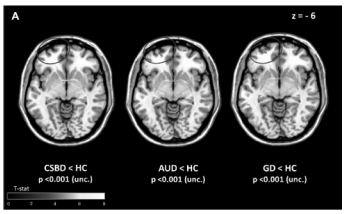


Figure 1. Results from the study. Panel A shows GMV comparisons in affected (CSBD, AUD, GD) versus HC groups. Panel B shows GMV comparisons in GD vs HC groups at FWE correction on cluster level. AUD = alcohol use disorder; CSBD = compulsive sexual behavior disorder; FWEc = Family Wise Error; GD = gambling disorder; GMV = gray matter volume. Figure 1 is available in color online at www.jsm.jsexmed.org.

Draps, M., Sescousse, G., Potenza, M. N., Marchewka, A., Duda, A., Lew-Starowicz, M., ... & Gola, M. (2020). Gray matter volume differences in impulse control and addictive disorders—an evidence from a sample of heterosexual males. *The Journal of Sexual Medicine*, *17*(9), 1761-1769.

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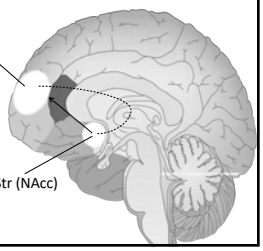
Neural mechanisms of control

Impulsive behavior vs Control

Appetitive cue

Cognitive control



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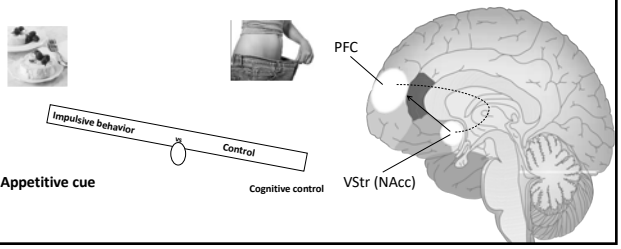
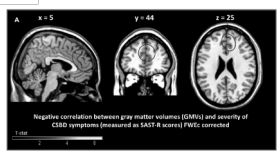
Neural mechanisms of control



19

Brain structure (VBM)



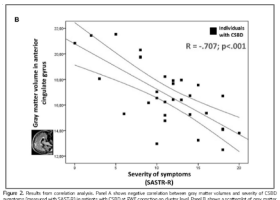


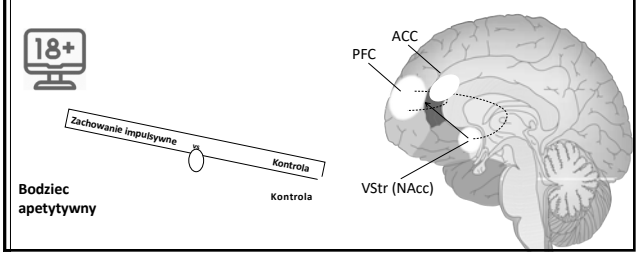
Figure 2. Results from correlation analysis. Panel A shows negative correlation between gray matter volumes and severity of CSBD symptoms (measured with SAST-R) in patients with CSBD at FWE correction on cluster level. Panel B shows a scatterplot of gray matter volumes in anterior cingulate gyrus and SAST-R scores in patients with CSBD. CSBD – compulsive sexual behavior disorder; FWEc – family Wise Error; SAST-R – Sex Addictive Screening Test Revised. Figure 2 is available in color online at www.jsxmedicine.org.

Draps, M., Sescousse, G., Potenza, M. N., Marchewka, A., Duda, A., Lew-Starowicz, M., ... & Gola, M. (2020). Gray matter volume differences in impulse control and addictive disorders—an evidence from a sample of heterosexual males. *The Journal of Sexual Medicine*, *17*(9), 1761-1769.

20

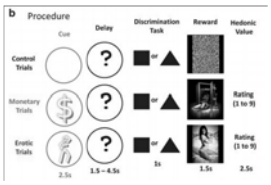
MateuszGola.pl

Neuronalne mechanizmy upośledzenia kontroli



21

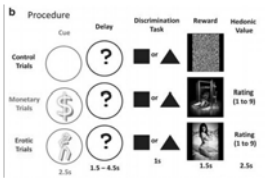
Brain function (fMRI)



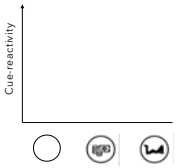
Gola, M., Wordecha, M., Sescousse, G., Lew-Starowicz, M., Kossowski, B., Wypych, M., ... & Marchewka, A. (2017). Can pornography be addictive? An fMRI study of men seeking treatment for problematic pornography use. *Neuropsychopharmacology*, *42*(10), 2021-2031.

22

Brain function (fMRI)



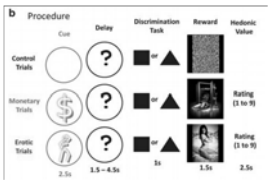
Incentive Salience Theory
(Berridge & Robbinson; 1993)



Gola & Szumska in preparation

23

Brain function (fMRI)



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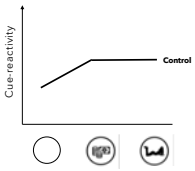

Gola & Szumska in preparation

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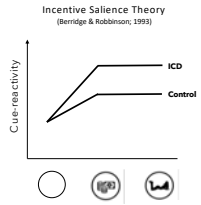
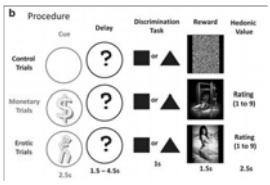
Brain function (fMRI)





Gola & Szumska in preparation

25

Striatal cue-reactivity (fMRI)

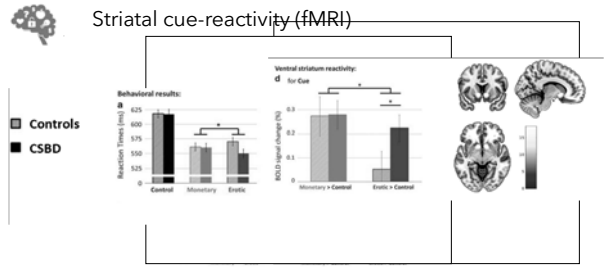


Figure 2 Behavioral and neuroimaging results. (a) Comparison of RTs in the discrimination task (see Figure 1c). (b) Comparison of accuracy. (c) Comparison of hedonic value ratings (see Figure 1b). (d) Comparison of BOLD signal change in the ventral striatum for cue presentation (BOLD signal averaged across 2 a priori defined regions of interests in the left and right brain hemisphere: 8-mm spheres centered around: Left: x = −12, y = 10 z = −6; Right: x = 12, y = 10, z = −6). (e) Comparison of BOLD signal response in the ventral striatum for reward presentation. All post hoc tests were carried out with Bonferroni correction for multiple comparisons. Error bars indicate SEM. *p < 0.05; ***p < 0.001. CSub, control subjects; PPU, problematic pornography users.

Gola, M., Wordecha, M., Sescousse, G., Lew-Starowicz, M., Kossowski, B., Wypych, M., ... & Marchewka, A. (2017). Can pornography be addictive? An fMRI study of men seeking treatment for problematic pornography use. *Neuropsychopharmacology*, *42*(10), 2021-2031.

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Striatal cue-reactivity (fMRI)

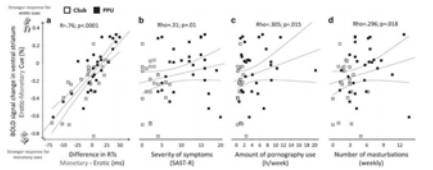

Figure 4 Correlations of ventral striatal cue-reactivity with amount of pornography use, frequency of masturbation, and clinical features of PPU. The correlations between differential striatal reactivity to monetary vs erotic cues and (a) relative motivation index measured as difference between RTs for monetary–erotic trials; (b) severity of CSB measured by the Sexual Addictions Screening Test—Revised (20 points scale, which was not used at recruitment phase); (c) average amount of pornography consumption per week, and (d) frequency of masturbation per week. Error lines depicts 95% confidence intervals. Bonferroni–Holms correction was used for multiple comparisons. CSub, control subjects; PPU, problematic pornography users.

Gola, M., Wordecha, M., Sescousse, G., Lew-Starowicz, M., Kossowski, B., Wypych, M., ... & Marchewka, A. (2017). Can pornography be addictive? An fMRI study of men seeking treatment for problematic pornography use. *Neuropsychopharmacology*, *42*(10), 2021-2031.

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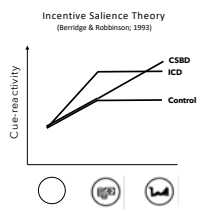
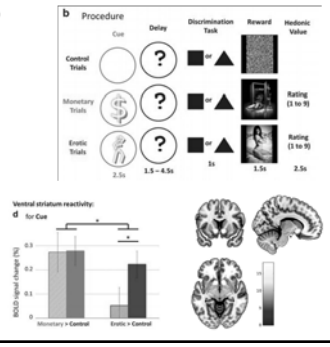
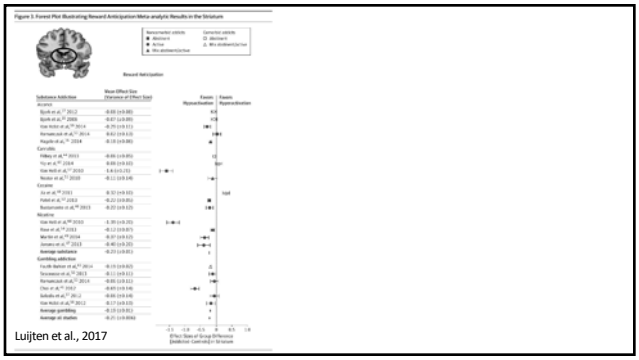
Brain function (fMRI)





Gola & Szumska in preparation

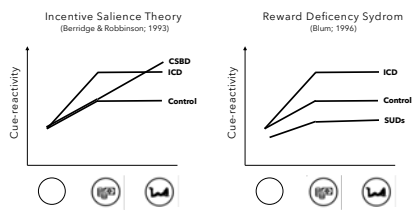
28



Luijten et al., 2017

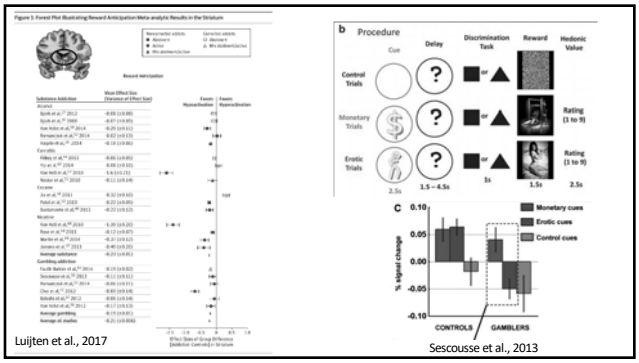
29

Brain function (fMRI)



Gola & Szumska in preparation

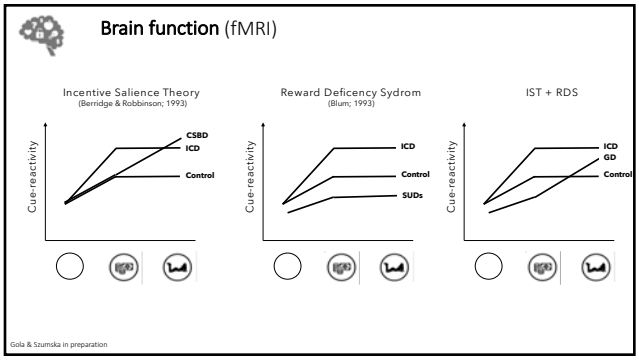
30



Luijten et al., 2017

Sescousse et al., 2013

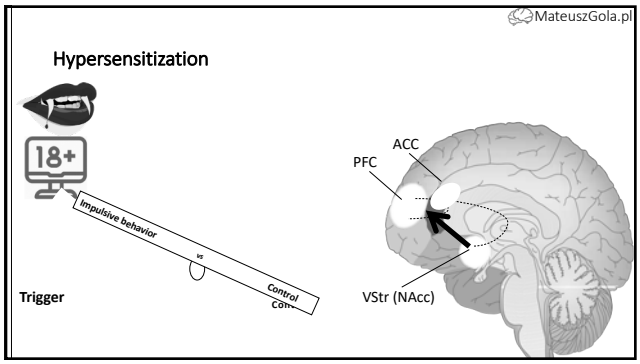
31



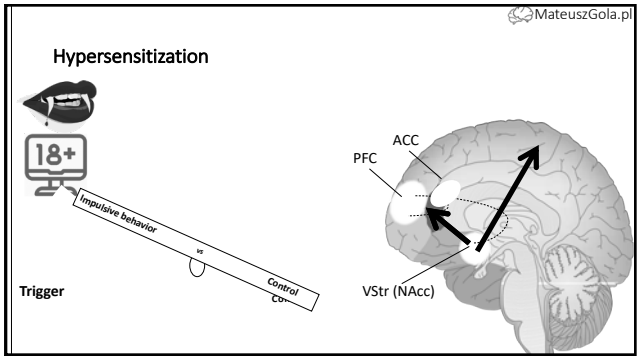
32

Brain function in CSBD

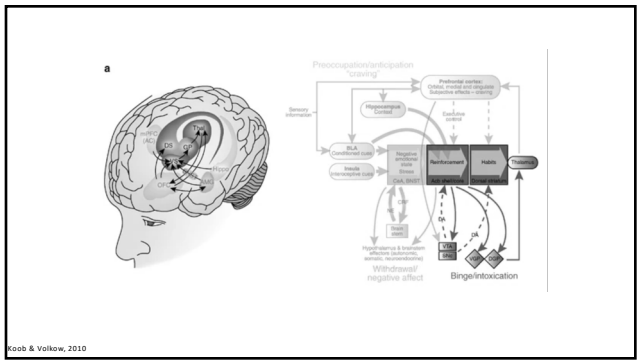
33


MateuszGola.pl
Hypersensitization
18+
Impulsive behavior
vs
Control
Trigger
ACC
PFC
VStr (NAcc)

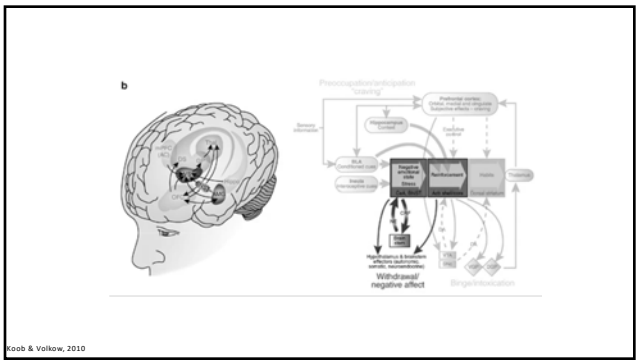
34


MateuszGola.pl
Hypersensitization
18+
Impulsive behavior
vs
Control
Trigger
ACC
PFC
VStr (NAcc)

35

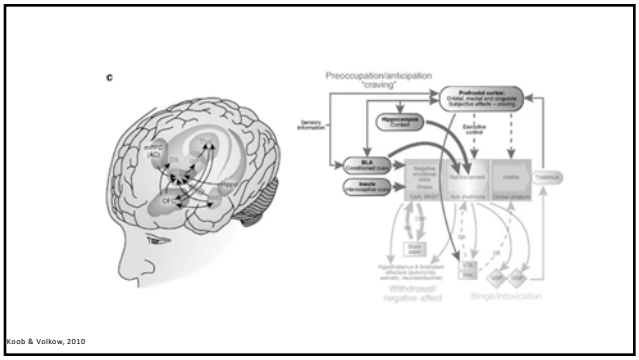

a
Preoccupation/anticipation
"craving"
Withdrawal/
negative affect
Binge/intoxication
Koob & Volkow, 2010

36



Koob & Volkow, 2010

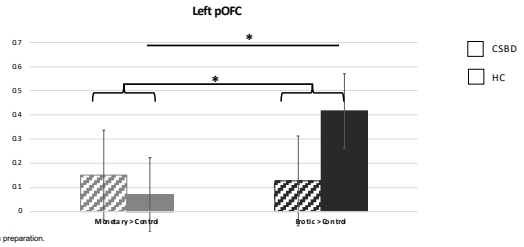
37



Koob & Volkow, 2010

38

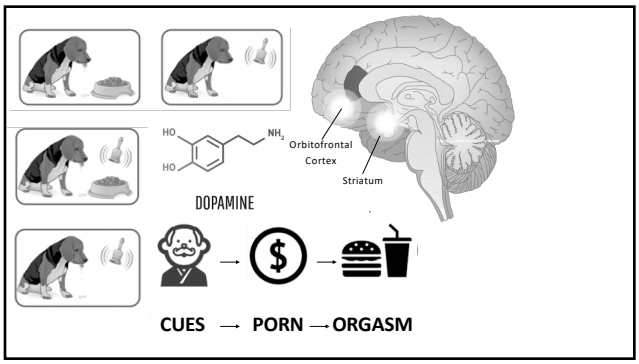
OFC cue-reactivity (fMRI)



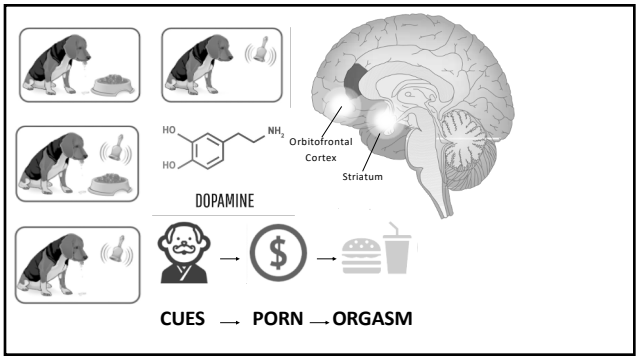
Kowalewska et al., in preparation.

Golec, K., Draps, M., Stark, R., Pluta, A., & Gola, M. (2021). Aberrant orbitofrontal cortex reactivity to erotic cues in Compulsive Sexual Behavior Disorder. *Journal of behavioral addictions*, *10*(3), 646-656.

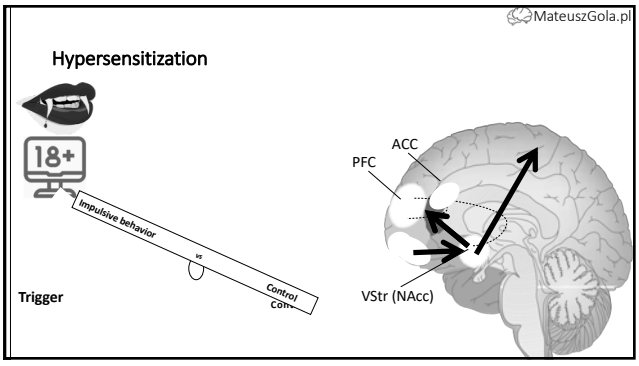
39


Orbitofrontal Cortex
Striatum
DOPAMINE
CUES → PORN → ORGASM

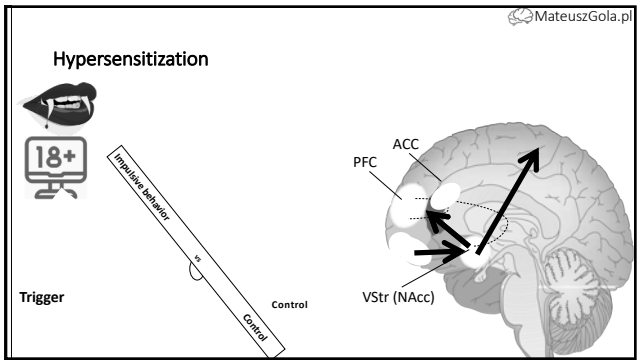
40


Orbitofrontal Cortex
Striatum
DOPAMINE
CUES → PORN → ORGASM

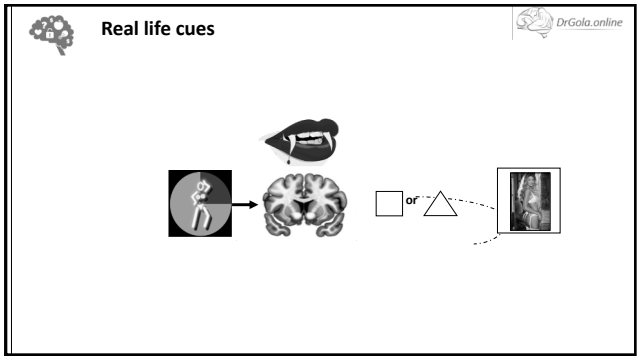
41


MateuszGola.pl
Hypersensitization
18+
Impulsive behavior
vs
Control
Trigger
ACC
PFC
VStr (NAcc)

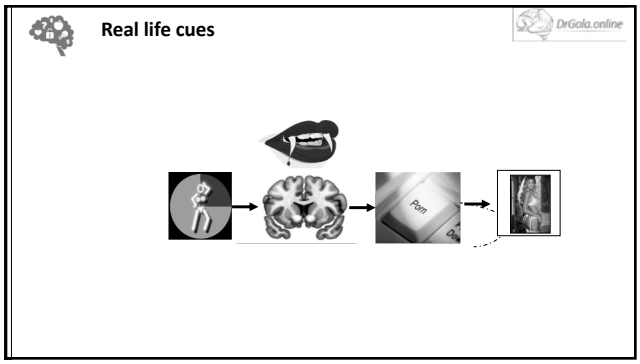
42


MateuszGola.pl
Hypersensitization
18+
Impulsive behavior
Trigger
Control
Control
ACC
PFC
VStr (NAcc)

43

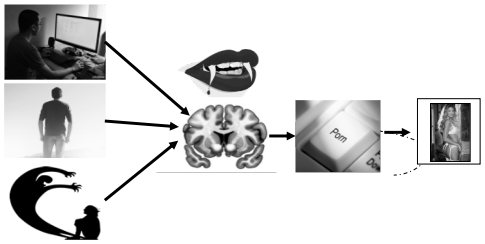

Real life cues
DrGola.online
or

44


Real life cues
DrGola.online
Porn

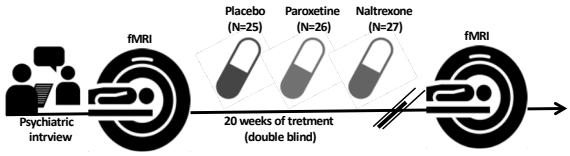
45

Real life cues



46

Brain function (double-blind therapeutic intervention)

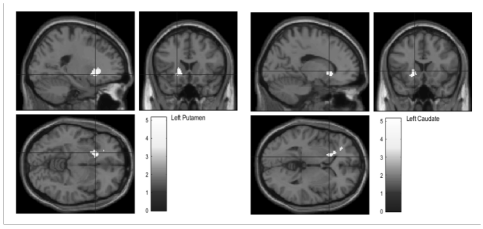


Gola et al., almost published ;-)

47

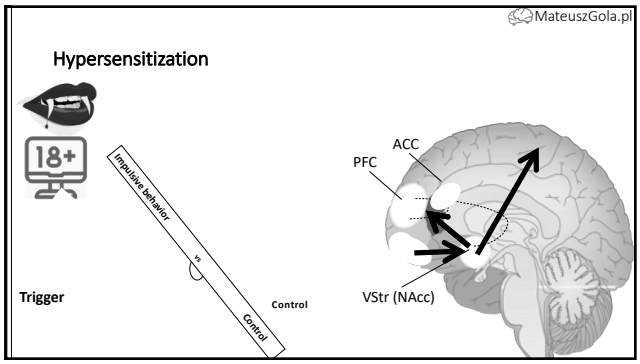
Paroxetine (N=24) > **Placebo** (N=25)

DECREASED reactivity for EROTIC cues Pre > Post

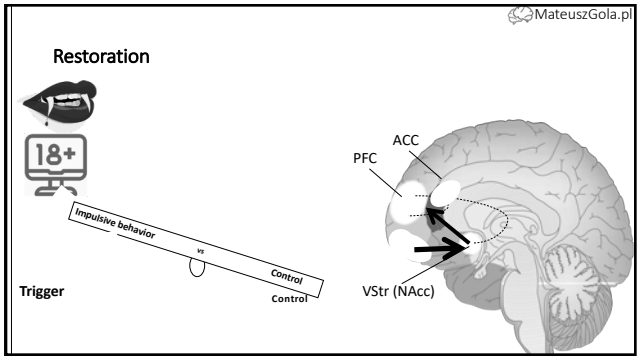


Gola et al., almost published ;-)

48



49



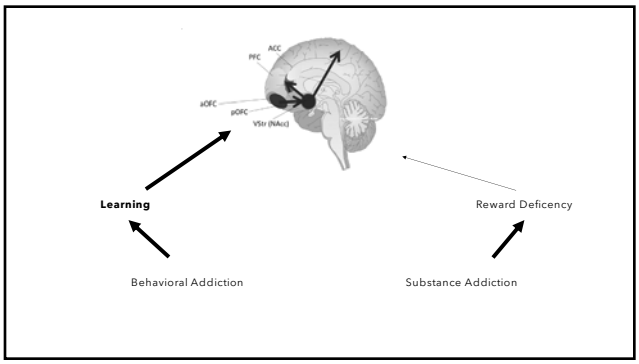
50

Summary of brain fndings

Brain structure: **Similar decrease in prefrontal VBM among CSBD / Alcohol Use Disorder / Gambling Disorder**

Brain function: **Well replicated incentive sensitization for erotic cues among CSBD. Stronger reactivity of OFC.**

51

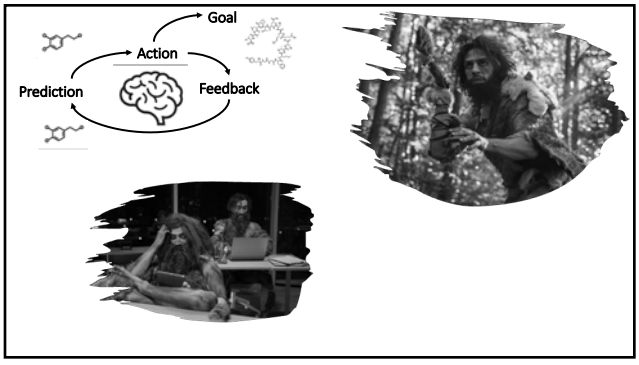


52

Question:

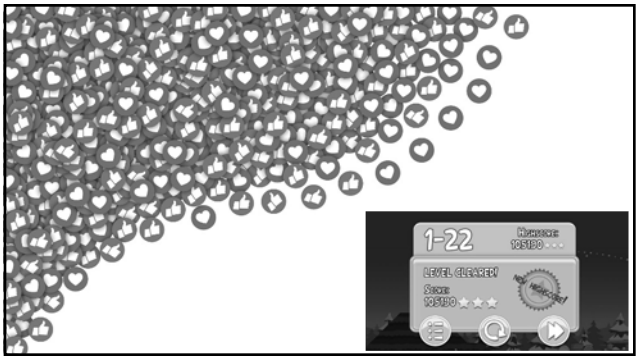
- How do we develop bahavioral addiction?

53



54

55



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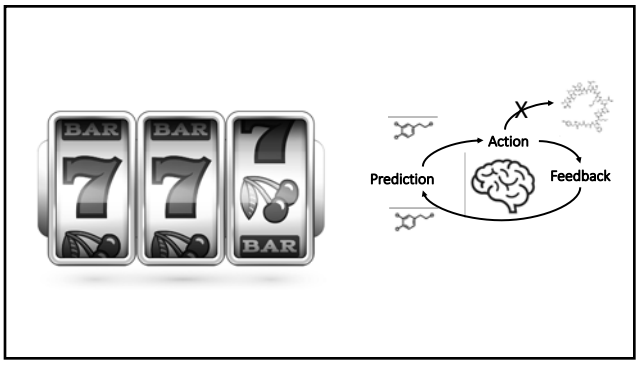


57

Addictive potential of other behaviors

1.) Frequency of feedback and reward
2.) Mismatch between effort and reward
3.) Random reinforcement

58

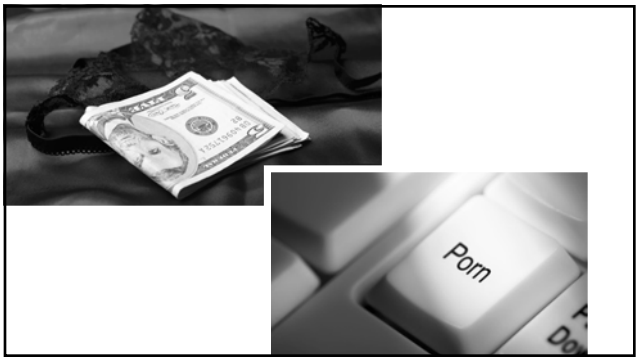
Example with skateboarding

59

60

Example with sex & porn

61



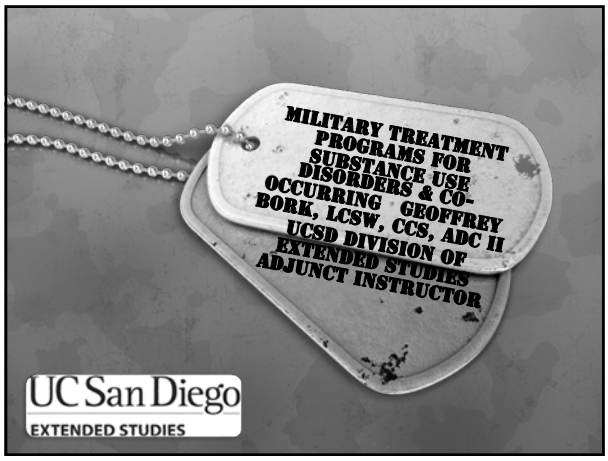
62

Q&A

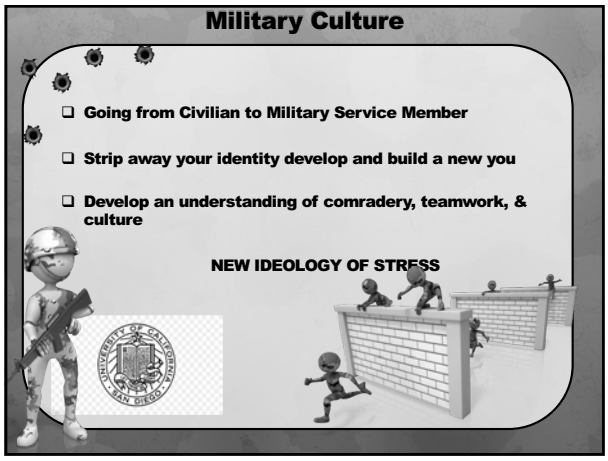
63

Military Treatment for SUDs and Co-Ooccurring

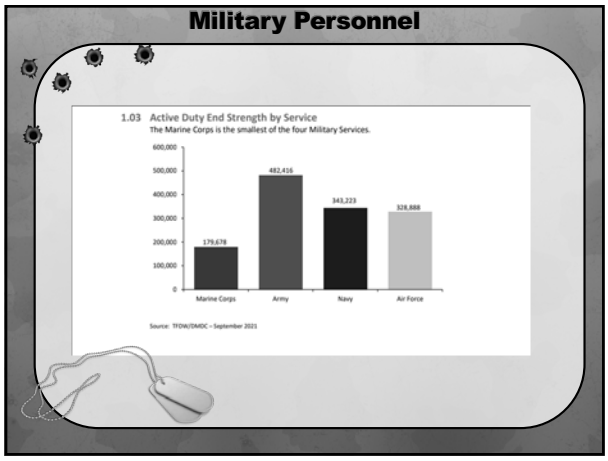
—Geoffrey Bork, LCSW UC San Diego, Division of Extended Studies


MILITARY TREATMENT PROGRAMS FOR SUBSTANCE USE DISORDERS & CO-OCCURRING
GEOFFREY BORK, LCSW, CCS, ADC II
UCSD DIVISION OF EXTENDED STUDIES
ADJUNCT INSTRUCTOR
UC San Diego
EXTENDED STUDIES

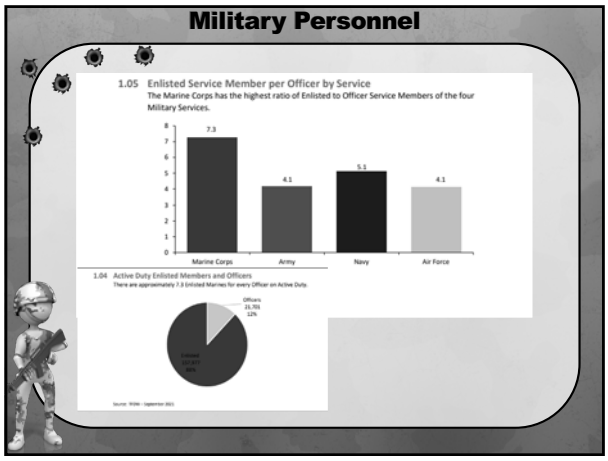
1


Military Culture
Going from Civilian to Military Service Member
Strip away your identity develop and build a new you
Develop an understanding of comradery, teamwork, & culture
NEW IDEOLOGY OF STRESS

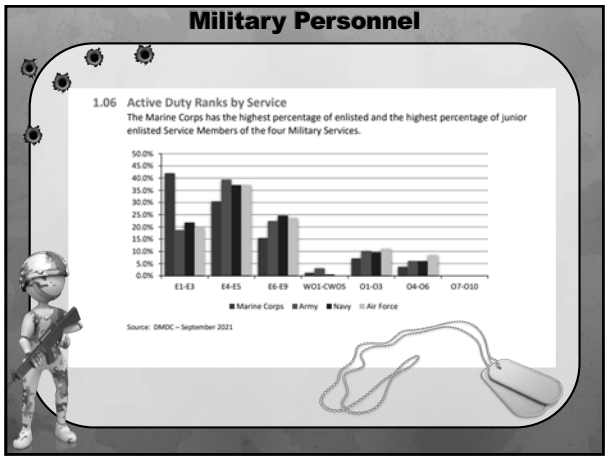
2


Military Personnel
1.03 Active Duty End Strength by Service
The Marine Corps is the smallest of the four Military Services.
600,000
500,000
400,000
300,000
200,000
100,000
0
179,678
482,416
343,223
328,888
Marine Corps
Army
Navy
Air Force
Source: TFDW/DMDC – September 2021

3


Military Personnel
1.05 Enlisted Service Member per Officer by Service
The Marine Corps has the highest ratio of Enlisted to Officer Service Members of the four Military Services.
7.3
4.1
5.1
4.1
Marine Corps
Army
Navy
Air Force
1.04 Active Duty Enlisted Members and Officers

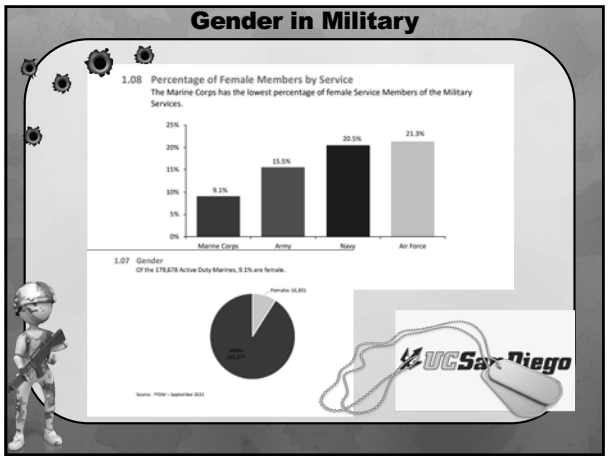
4


Military Personnel
1.06 Active Duty Ranks by Service
The Marine Corps has the highest percentage of enlisted and the highest percentage of junior enlisted Service Members of the four Military Services.
50.0%
45.0%
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
E1-E3
E4-E5
E6-E9
WO1-CWO5
O1-O3
O4-O6
O7-O10
Marine Corps
Army
Navy
Air Force
Source: DMDC – September 2021

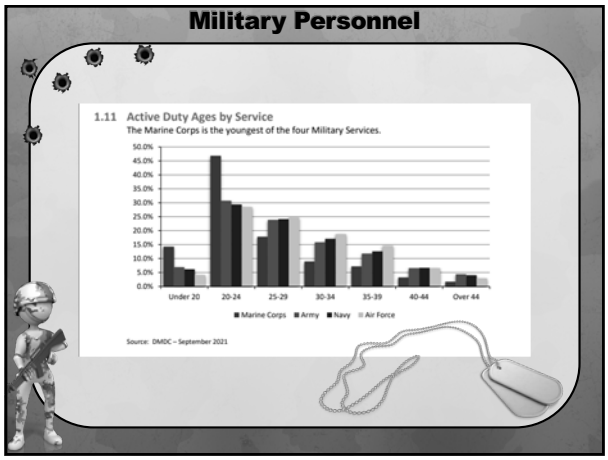
5


Military Ranks
Rank Insignia of the United States Armed Forces

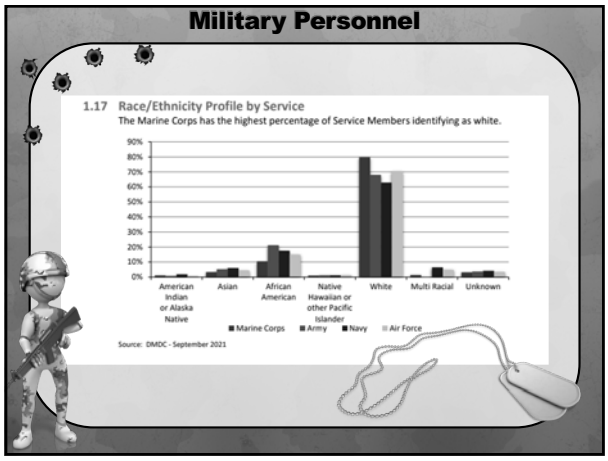
6


Gender in Military
1.08 Percentage of Female Members by Service
The Marine Corps has the lowest percentage of female Service Members of the Military Services.
25%
20%
15%
10%
5%
0%
9.1%
15.5%
20.5%
21.3%
Marine Corps
Army
Navy
Air Force
1.07 Gender
Of the 179,678 Active Duty Marines, 9.1% are female.
UCSan Diego

7


Military Personnel
1.11 Active Duty Ages by Service
The Marine Corps is the youngest of the four Military Services.
50.0%
45.0%
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
Under 20
20-24
25-29
30-34
35-39
40-44
Over 44
Marine Corps
Army
Navy
Air Force
Source: DMDC – September 2021

8


Military Personnel
1.17 Race/Ethnicity Profile by Service
The Marine Corps has the highest percentage of Service Members identifying as white.
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
American Indian or Alaska Native
Asian
African American
Native Hawaiian or other Pacific Islander
White
Multi Racial
Unknown
Marine Corps
Army
Navy
Air Force
Source: DMDC - September 2021

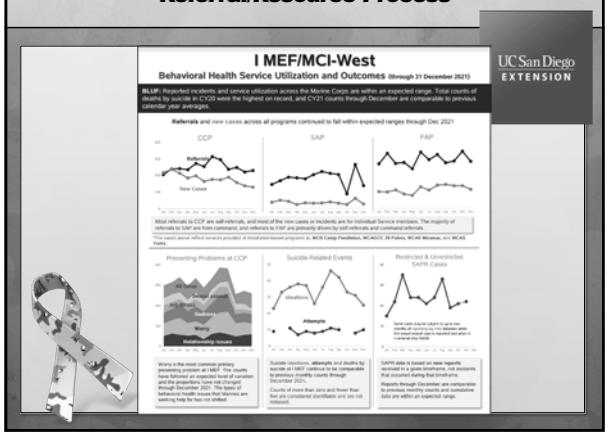
9

RESOURCES/REFERRALS

Referral Process

10

Referral/Resource Process



11

Referral/Resource Process

USMC RESOURCES: NON-MEDICAL COUNSELING SERVICES

- The Community Counseling Program (CCP) provides non-medical counseling that addresses improving coping skills and decreasing stress in order to strengthen well-being to Service members and their families.
- The Substance Abuse Program (SAP) provides prevention and non-medical counseling services based on current research, evidence, and best practices. Installation Substance Abuse Counseling Centers (SACCs) provide prevention and non-medical counseling services to active duty Service members (SM) and their family members on a space-available basis.
- The Family Advocacy Program (FAP) promotes healthy relationship development through prevention, identification, assessment, advocacy, reporting and response to child abuse, domestic abuse, and problematic sexual behavior in children and youth (PSB-CY). Elements within FAP include Prevention and Education (P&E), New Parent Support (NPSP), Advocacy, and non-medical clinical counseling.
- Suicide is an enterprise-wide concern that has lasting harmful effects on Marines and Families. The Marine Corps strategy for reducing suicides in the Marine Corps from the all-time high in CY2020 focuses on four lines of effort: prevention and skill building, use of data and research, communication, and collaboration.
- The Sexual Assault Prevention and Response (SAPR) Program uses research, best practices, partnership with Marine leaders, and collaboration with sister Services and community partners to prevent sexual assault within all ranks and support those affected by sexual assault.

POC: Jerilyn Smith, HQMC Behavioral Programs, Data Surveillance, 703-432-9707, jerilyn.smith@usmc.mil

12

Mental Health Services/Resources

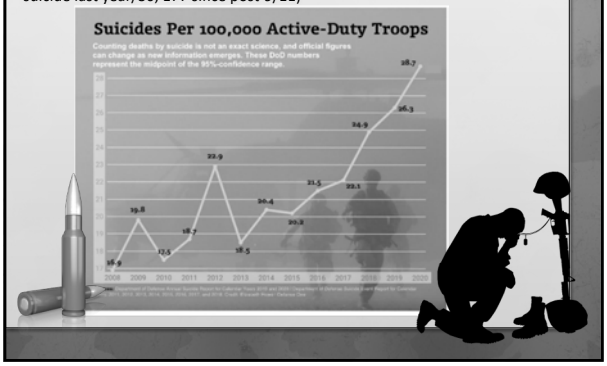
MENTAL HEALTH SERIVCES
Chaplain/Pastoral Services
Mental Health Services , SARP, Triage, Emergency Department (ED)
Social Work Services
OSCAR Providers
Uniform Victim Advocates (UVA)
Network Providers (TriCare)
MCCS/Department/Division/Unit

UCSD EXTENSION

13

Referral/Resource Process

Suicide Rates: 1 in 11 seconds annual defense department report (384 died by suicide last year/30, 177 since post-9/11)



14

Active Duty Treatment Programs

Treatment

15

TREATMENT

SARP Treatment Programs: Provide medical level IOP treatment for Co-Occurring Disorders: PsyD, LCSW, ADC II

- ❑ PTSD Trauma Cohort: (Combat, MST, MH Referrals)
- ❑ General Co-Occurring: (Anxiety, Depression, Mood)
- ❑ Substance Use Disorders: Medical level, complex
- ❑ Cognitive Behavioral Therapy: (3 weeks)

6 Weeks of Treatment: for Active Duty Service Members Integrative & Holistic Health Care for complex problems using EBP and holistic health approaches

- ❑ Individual and Group Counseling
- ❑ Virtual Counseling/Treatment
- ❑ Yoga
- ❑ Tai Chi
- ❑ Massage Therapy

16

NON MEDICAL COUNSELING

MCCS Non-Medical Clinical Counseling: Provide non-medical services for active duty, families, dependents, and retirees.

- ❑ SACC (OP, IOP) Mild to moderate SUDS/Prevention, Referrals to SARP
- ❑ CCC: Individual Clinical Counseling stressors, adjustment to stress
- ❑ FAP: DV/IPV, Anger management, Referrals
- ❑ New Parent Support
- ❑ MFLAC
- ❑ Professional Development (ie transitioning)

17

THANK YOU!

Questions?

UCSD EXTENSION

18

New Technologies – New Addictions. Tools for diagnosis and treatment of behavioral addiction.

—— Mateus Gola, Ph.D., UCSD

New Technologies, New Addictions

Workshop

Mateusz Gola, PhD

1

Disclosures:

UC San Diego - Associate Research Professor

PAN - Associate Professor of Psychology at Polish Academy of Sciences

PREDICT WATCH - Co-founder and Advisor

DrGola.online - Online clinical practice

2

Objectives:

- Understanding of diagnostic criteria
- Understanding differences between substance and behavioral addiction
- Functional analysis of behavior
- Overview of treatment approaches
- Hands-on experience

3

4

Diagnostic criteria: Gambling Disorder (6C50)

Description

- Gambling disorder is characterized by a pattern of **persistent or recurrent** gambling behavior, which may be **online** (i.e., over the internet) **or offline**, manifested by:

1. **Impaired control** over gambling (e.g., onset, frequency, intensity, duration, termination, context);
2. increasing priority given to gambling to the extent that gambling **takes precedence over other life interests and daily activities**
3. **continuation or escalation** of gambling **despite the occurrence of negative consequences**.

- The pattern of gambling behavior **may be continuous or episodic and recurrent**.
- The pattern of gambling behavior **results in significant distress or in significant impairment in personal, family, social, educational, occupational or other important areas of functioning**.
- The gambling behavior and other features are normally **evident over a period of at least 12 months** in order for a diagnosis to be assigned, although the required duration may be shortened if all diagnostic requirements are met and symptoms are severe.

Exclusions

- Bipolar type I disorder (6A60)
- Bipolar type II disorder (6A61)
- Hazardous gambling or betting (QE21)

5

6C51 Gaming Disorder

- **Description**
- Gaming disorder is characterized by a pattern of persistent or recurrent gaming behaviour ('digital gaming' or 'video-gaming'), which may be online (i.e., over the internet) or offline, manifested by:
- 1. impaired control over gaming (e.g., onset, frequency, intensity, duration, termination, context);
- 2. increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities;
- 3. continuation or escalation of gaming despite the occurrence of negative consequences.
- The pattern of gaming behaviour may be continuous or episodic and recurrent.
- The pattern of gaming behaviour results in marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning.
- The gaming behaviour and other features are normally evident over a period of at least 12 months in order for a diagnosis to be assigned, although the required duration may be shortened if all diagnostic requirements are met and symptoms are severe.
- Exclusions
- Hazardous gaming (QE22)
- Bipolar type I disorder (6A60)
- Bipolar type II disorder (6A61)

6

Compulsive sexual behaviour disorder (6C72)

In 2019 World Health Organization (WHO) recognized **Compulsive sexual behaviour disorder** (**CSBD**) characterized by:

1.) **persistent** pattern of **failure to control** intense, repetitive **sexual impulses or urges** resulting in repetitive sexual behaviour.
2.) **neglecting health and personal care or other interests, activities and responsibilities**;
3.) numerous **unsuccessful efforts to significantly reduce** repetitive **sexual behaviour**;
4.) continued repetitive **sexual behaviour despite adverse consequences** or deriving little or no satisfaction from it.

The pattern of failure to control intense, sexual impulses or urges and resulting repetitive sexual behaviour is **manifested over** an extended period of time (e.g., **6 months or more**), and **causes marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning**.

Distress that is entirely related to moral judgments and disapproval about sexual impulses, urges, or behaviours **is not sufficient to meet this requirement**.

WHO, 2019: https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/1630268048

7

Prevelance

problematic users
users

Gola & Skorko, in prep.

8

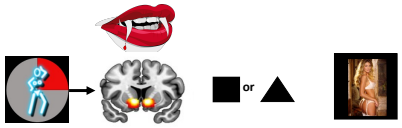
Question:

- How do we recognize addiction:
  - Repeated or continuous use / behaviour
  - Impaired ability to control use / behaviour
  - Increasing priority given to use over other activities
  - Use despite harm or negative consequences
  - Tolerance & withdrawal symptoms

9

Real life cues

DrGola.online



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Real life cues

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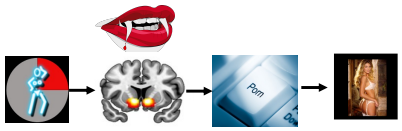

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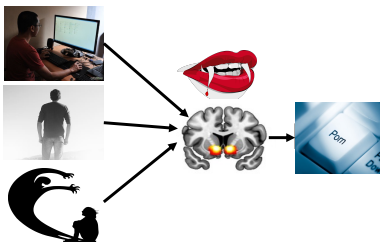

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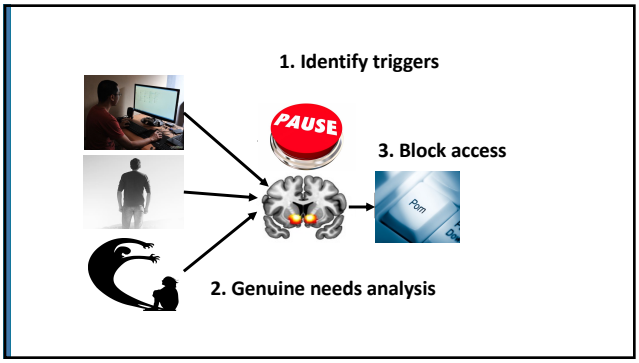

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QUICK CBT INTERVIEW

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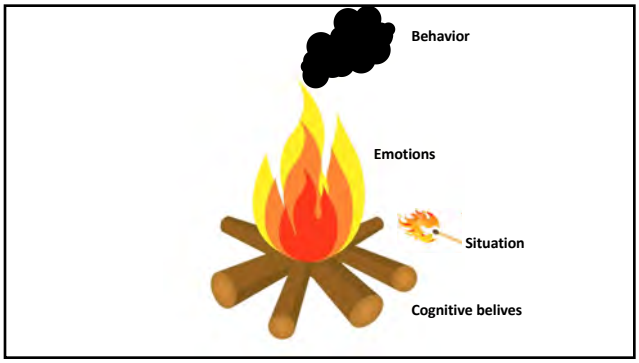


16

Daily Automatic Thought Record

Name:_____

Date:	Situation: What were you doing?	Emotion: What do you feel? How bad is it? (0-100)	Automatic Thoughts: What exactly were your thoughts? How much do you believe each of them? (0-100)	Rational Response: What are the rational responses to your automatic thoughts? How much do you believe your rational responses? (0-100)	Outcome: How much do you now believe the automatic thoughts? (0-100) How do you feel now? (0-100) What can you do now?

* Rational Response: Challenge Your Thinking:
1. What is my evidence against the thought?
2. Is there any other way to look/think about this?
3. Even if it is true, is it the end of the world?

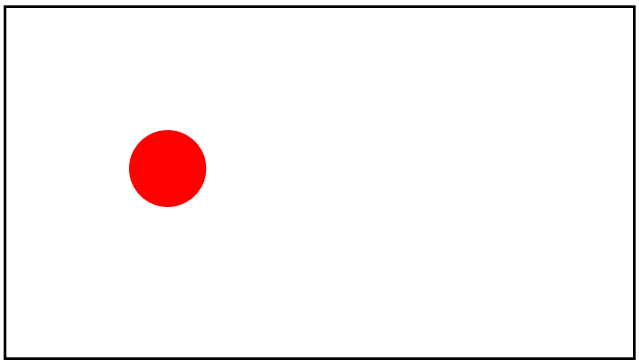
Pre-anxiety Level (0-5)_____
Relaxation Location _____
Post-anxiety Level (0-5)_____

17

Experience:

- Define your problem and goal

18



19

Group practice:

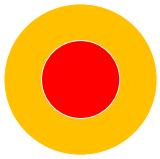
- Is this definition clear?
- Can you cheat yourself?
- Is this goal realistic?
- How difficult it is to achieve ?

20

Experience:

- Identify what leads to the problem?
  - Situations
  - Thoughts / Schemas
  - Habits

21



22

Group practice:

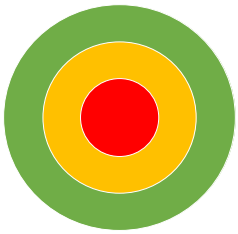
- Discuss what can you do with these factors?
- How can you:
  - Avoid them
  - Modify them
  - Reframe

23

Experience:

- What helps you stay away from your problem?
  - Situations
  - Thoughts / Schemas
  - Habits

24



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Group practice:

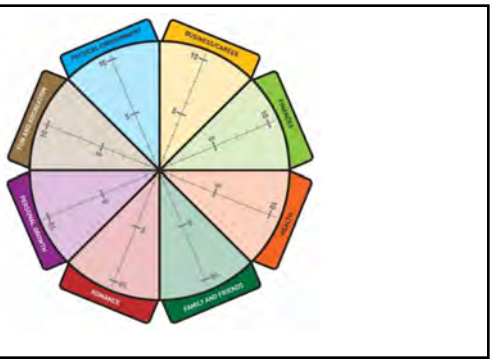
- Discuss what can you do to develop more of these factors.

26

Experience:

- Check how do you satisfy your needs
  - Draw one line for your satisfaction
  - Draw other color line for the effort and time you put into certain aspect of your life

27



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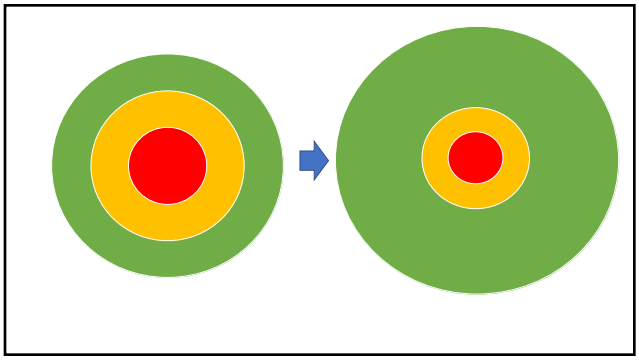

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- At this stage we should have good understanding of:
  - The function of the problem
  - Context of the problem
  - Cognitive and behavioral mechanisms maintaining the problem
  - Needs which need to be satisfied to eliminate the problem
- Now it's time to build some motivation for change

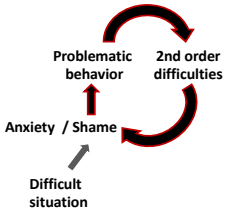
30

MORAL INCONGRUENCE

31

Moral incongruence mechanisms

- Additional risk-factors:
  - Perfectionism
  - „must" and „should: thinking
  - Dichotomic thinking
  - High self-criticism
  - High anxiety
  - Imagination of God as punishing



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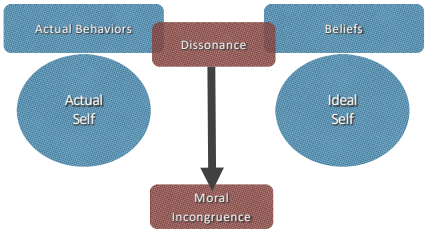
Moral Incongruence



Lewczuk, K., Nowakowska, I., Lewandowska, K., Potenza, M. N., & Gola, M. (2021). Frequency of use, moral incongruence and religiosity and their relationships with self-perceived addiction to pornography, internet use, social networking and online gaming. *Addiction*, *116*(4), 889-899.

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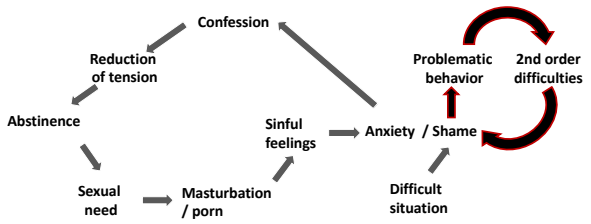
Moral incongruence mechanisms



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Solution

- Disentanglement of religious rituals from sexual behavior
- More self-love and understanding
- More flexible thinking
- Seeking for other (acceptable) sources of pleasure in live

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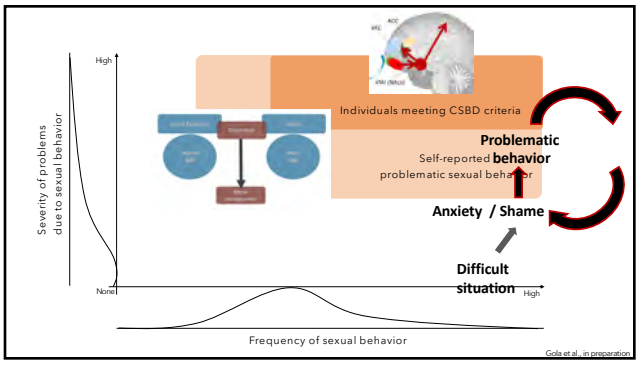

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Overview of Theories

Motivational Interviewing (MI)

Born out of the addictions field and has an impressive array of empirical support for its effectiveness

Cognitive Behavioral Therapy (CBT).

Helps to identify and modify dysfunctional believes

Mindfulness based Relapse Prevention

Increase awareness of external triggers

Increase awareness of internal cognitive and affective processes

Increase tolerance to challenging cognitive, affective, and physical experiences

Existential Therapy

Substance abuse often manifests as a crisis in meaning and the "givens of existence."

Usefull at later stages of treatment

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Overview of Theories Continued

Group Therapy

Good in substance abuse and behavioral addiction treatment; both traditional psychotherapy and mutual help groups (e.g., 12 step AA) are important in behavioral addiction treatment

Family Therapy

Useful in Gaming addiction

Solution-focused therapy

a. Focused on the presence of something
b. Set small goals
c. Perceived by the client as involving hard work

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Diagnosis

- Frequency of behavior
- Impact on life (based on ICD-11)
- Check for binges
- Status of relationship
- Functional analysis (based on last situation)
- Identification of moral belives about behavior (or sex in general)
- Ask for treatment goals

39

MateuszGola.pl

Differential Diagnosis

- Exclude bipolar disorder
- Exclude paraphilias
- Exclude neurodegenerative disorders
- Exclude effects of substance abuse

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Case A

- 62-year-old bisexual man. With history of gambling since his teenage. For the last 40 years visited casinos 3 to 5 times a year usually for a weekend, spending predefined amount of money ($1000 – $2000) on blackjack, roulette and poker. Sometimes he went over a budget, but never took any depts to gamble.
- Over the scope of last month, he has visited casinos 7 times and spent much more than usually (over $20 000) and majority of this money were withdrawn form his retirement savings (approx. $15 000), what resulted with experience of loss of control over his gambling.
- Was diagnosed with early onset Parkinson's Disease in the age of 48. Recently has been put on new medication to mitigate tremors.
- Experience sleep problems.

41

Case B

- 14 years old boy. With history of gaming since age of 8 years.
- Currently does not play computer games as his parents took away his computer 4 weeks ago, when day learned he is at risk of not passing to the next grade.
- Before he was playing online games in average 6 hours a day. Time spent on games was systematically increasing over last 2-3 years, during COVID parents could not tell how much time he spends on online classes how much on gaming.
- According to B he is conflicted with parents due to the limitation of gaming and they „restrictive" parenting style.
- According to parents they can not trust B due to the multiple lies about the time spent on gaming and neglect of his school and home duties.
- Family background: High middle class, father has an advanced pancreatic cancer, older sister identifies as transgender person.

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Case C:

- 27-year-old heterosexual man. Currently in relationship for last 6 month but did now initiate sexual activity with his partner due to the religious norms (no sex until marriage). Had been in 3 other relationships before but without sexual initiation.
- Currently his main problem is compulsive pornography watching. He restrain form porn for 7-14 days and than watch it and masturbates 2-4 Times a day for next 5 to 14 days.
- During periods of pornography watching, he usually miss his classes at PhD program, is late to work or sometimes call off. Sleep less and withdraws form his social activities.

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Case D:

- 39 years old bisexual man. Currently in relationship for last 12 months. Have sexual encounters with his partner 2-5 Times a week. During last 12 months have sex with approximately 30 other people, without knowledge and consent of his domestic partner.
- Uses pornography and masturbates almost on daily basis, occasionally restrain for 1 to 3 days. During more stressful and difficult days can spend even up to 6-8 hour on porn and multiple (up to 15 Times) masturbations, when his partner is at work.
- Works form home as an internet influencer. Do not report current interference of his sexual behavior with his work.
- In the past his pornography withing affected his education (abundant his graduate education), day work (lost job twice) and 7 previous relationships (5 Times was cat on infidelity, 2 partners complained about his pornography use).
- Was trying several treatment approaches for last 10 years including individual therapy, group therapies, 12-step programs, and 2 pharmacotherapies.
- Currently met criteria of major depression disorder (MDD). In the past had 3 MDD episodes all treated with different SSRIs.
- Used to be religious as a teenager, but do not practice any religion currently.

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What about such behaviors as:

- Online Shopping
- Social media
- Video streaming
- Work
- Sport (e.g. running)
- Extreme sports

45

Case E

- 45 year old man. Married with 3 kids. No substance use disorders.
- Self diagnosed „shopping addiction”
- Spends a lot of free time on smartphone shopping apps browsing for discounts and promotions.
- Buys mostly cloths for himself and his kids 1-2 times a week, what evokes feeling of guilt.
- Sometimes hides new-bought cloths so his wife can not see them.
- Budget spent on shopping is equal approximately 5% of the household income.

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Case E

- „I should not buy new things if old one are still OK”
- „I can not waste money”
- „I do not deserve it”
- „I do something wrong”
- „I should keep it secret”

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Screening questionaires

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IN THE PAST YEAR....

	Yes	No
1. Have you often found yourself thinking about gambling (e.g., reliving past gambling experiences, planning the next time you will play or thinking of ways to get money to gamble)?	☐	☐
2. Have you needed to gamble with more and more money to get the amount of excitement you are looking for?	☐	☐
3. Have you become restless or irritable when trying to cut down or stop gambling?	☐	☐
4. Have you gambled to escape from problems or when you are feeling depressed, anxious or bad about yourself?	☐	☐
5. After losing money gambling, have you returned another day in order to get even?	☐	☐
6. Have you lied to your family or others to hide the extent of your gambling?	☐	☐
7. Have you made repeated unsuccessful attempts to control, cut back or stop gambling?	☐	☐
8. Have you risked or lost a significant relationship, job, educational or career opportunity because of gambling?	☐	☐
9. Have you sought help from others to provide the money to relieve a desperate financial situation caused by gambling?	☐	☐

**4 or more "yes" answers indicates a diagnosis for Gambling Disorder – please see DSM-V for further diagnostic criteria.

*Less than 4 indicates a *potential* problem and/or at risk indicators which may warrant further support, education and treatment services.

Molander, O., Volberg, R., Sundqvist, K., Wennberg, P., Månsson, V., & Berman, A. H. (2019). Development of the gambling disorder identification test (G-DIT): protocol for a Delphi method study. *JMIR research protocols*, 8(1), e12006.

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Internet Gaming Disorder Test (IGD Test)*

1. I often lose sleep because of long gaming sessions.
2R**. I never play games in order to feel better.
3. I have significantly increased the amount of time I play games over last year.
4. When I am not gaming I feel more irritable.
5. I have lost interest in other hobbies because of my gaming.
6. I would like to cut down my gaming time but it's difficult to do.
7. I usually think about my next gaming session when I am not playing.
8. I play games to help me cope with any bad feelings I might have.
9. I need to spend increasing amounts of time engaged in playing games.
10. I feel sad if I am not able to play games.
11. I have lied to my family members because the amount of gaming I do.
12. I do not think I could stop gaming.
13. I think gaming has become the most time consuming activity in my life.
14. I play games to forget about whatever's bothering me.
15. I often think that a whole day is not enough to do everything I need to do in-game.
16. I tend to get anxious if I can't play games for any reason.
17. I think my gaming has jeopardised the relationship with my partner.
18. I often try to play games less but find I cannot.
19R**. I know my main daily activity (i.e., occupation, education, homemaker, etc.) has not been negatively affected by my gaming.
20. I believe my gaming is negatively impacting on important areas of my life.

Dimensions

Salience: 1, 7, 13
Mood Modification: 2R, 8, 14
Tolerance: 3, 9, 15
Withdrawal Symptoms: 4, 10, 16
Conflict: 5, 11, 17, 19R, 20
Relapse: 6, 12, 18

*Instructions: These questions relate to your gaming activity during the past year (i.e., 12 months). By gaming activity we mean any gaming-related activity that was played on either a computer/laptop, gaming console and/or any other kind of device, online and/or offline.
** Reversely scored items.
*** Items answered on a 5-point scale: 1 "strongly disagree", 2 "disagree", 3 "neither agree or disagree", 4 "agree", 5 "strongly agree".
**** Suggested empirical cut-off for the test: 71 points.

Pontes, H. M., Király, O., Demetrovics, Z., & Griffiths, M. D. (2014). The conceptualisation and measurement of DSM-5 Internet Gaming Disorder: The development of the IGD-20 Test. *PloS one*, 9(10), e110137.

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	1 – totally disagree	*2 – somewhat disagree*	*3 – somewhat agree*	*4 – totally agree*
1. Even though my sexual behavior was irresponsible or reckless, I found it difficult to stop.	O	O	O	O
2. Sex has been the most important thing in my life.	O	O	O	O
3. I was able to resist my sexual urges for only a little while before I surrendered to them.	O	O	O	O
4. I had sex even when I did not enjoy it anymore.	O	O	O	O
5. My sexual urges and impulses changed me in a negative way.	O	O	O	O
6. I could not control my sexual cravings and desires.	O	O	O	O
7. I would rather have had sex than to have done anything else.	O	O	O	O
8. Trying to reduce the amount of sex I had almost never worked.	O	O	O	O
9. Although sex was not as satisfying for me as before, I engaged in it.	O	O	O	O
10. I did not accomplish important tasks because of my sexual behavior.	O	O	O	O
11. My sexual desires controlled me.	O	O	O	O
12. When I could have sex, everything else became irrelevant.	O	O	O	O
13. I was not successful in reducing the amount of sex I had.	O	O	O	O
14. Although my sex life was not as satisfying as it had been before, I had sex.	O	O	O	O
15. My sexual activities interfered with my work and/or education.	O	O	O	O
16. My sexual behaviors had negative impact on my relationships with others.	O	O	O	O
17. I have been upset because of my sexual behaviors.	O	O	O	O
18. My sexual activities interfered with my ability to experience healthy sex.	O	O	O	O
19. I often found myself in an embarrassing situation because of my sexual behavior.	O	O	O	O

Scoring: Add the scores of the items. 50 points or more indicate high risk of compulsive sexual behavior disorder.

Factors of the scale:
Control: 1., 6., 11.
Salience: 2., 7., 12.
Relapse: 3., 8., 13.
Dissatisfaction: 4., 9., 14.
Negative consequences: 5., 10., 15., 16., 17., 18., 19.

Böthe, B., Potenza, M. N., Griffiths, M. D., Kraus, S. W., Klein, V., Fuss, J., & Demetrovics, Z. (2020). The development of the Compulsive Sexual Behavior Disorder Scale (CSBD-19): An ICD-11 based screening measure across three languages. *Journal of Behavioral Addictions*, 9(2), 247-258.

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Brief Pornography Screener

In the past six months have these situations occurred to you:

Please tick the relevant box

	Never	Sometimes	Frequently
You find yourself using pornography more than you want to.			
You have attempted to "cut back" or stop using pornography, but were unsuccessful.			
You find it difficult to resist strong urges to use pornography.			
You find yourself using pornography to cope with strong emotions (e.g., sadness, anger, loneliness, etc.).			
You continue to use pornography even though you feel guilty about it.			

Guide for use

The Brief Pornography Screener was first used in 2017 and has now been tested in several clinical trials on adults.

The patient marks the boxes. The completed test is scored – giving... 0 = never, 1 = sometimes, 2 = frequently. Add up the scores, range will be 0 to 10.

The most optimal cut-off value seems to be 4 points.

- Patients with less than 4 points are not likely to have a problem.
- Patients with 4 points are likely to have a problem, with about 80% confidence.
- Patients scoring above 4 points are very likely to have a problem.

If someone scores high enough to suggest there is an issue, consider moving on to test the issue using the Problematic Pornography Consumption Scale.

Kraus, S. W., Gola, M., Grubbs, J. B., Kowalewska, E., Hoff, R. A., Lew-Starowicz, M., ... & Potenza, M. N. (2020). Validation of a brief pornography screen across multiple samples. *Journal of Behavioral Addictions*, *9*(2), 259-271.

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CDCR Integrated Substance Use Disorder Treatment Panel

Renee Kanan, MD, Deputy Director Medical Services, California Correctional Health Care Services (CCHCS), Lisa Heintz, Director CHCS, Donna Kalauokalani, MD, MPH Deputy Medical Executive, Medical Services
Janene DelMundo, ISUDT Project Director

CALIFORNIA CORRECTIONAL HEALTH CARE SERVICES

California Department of Corrections and Rehabilitation

Road To Recovery

Integrated Substance Use Disorder Treatment Program

University of California, San Diego
Summer Clinical Institute in Addiction Studies

Lisa Heintz, Director, Legislation and Special Projects
Renee Kanan, Deputy Director, Medical Services
Donna Kalauokalani, Deputy Medical Executive, Medical Services
Janene DelMundo, ISUDT Project Director

June 16, 2022

1

Lisa Heintz
Director
Legislation and Special Projects

2

2

Presentation Overview

- Problem: Why we need to Address Substance Use Disorder (SUD)
- Solutions to Address SUD:
  - While Individuals are Incarcerated
  - As Individuals Transition back to the Community
- Measuring Success & Program Evaluation
- Life Transformations
- Future Goals

3

3

Problem: Overdose Deaths

Big Problem in this Country

- Center for Disease Control and Prevention (CDC) data from April 2021 show a **28%** increase in overdose deaths or more than **100,000** drug-related deaths - the highest ever recorded in a 12-month period (mostly related to OUD / fentanyl)
- Nationally, the overdose mortality rate in state prison systems increased **623%** from 2001 to 2019 (NIDA data)

Big Problem in California

- CDC data show nearly **9,000** overdose deaths in California in 2020 (a rate of approximately **22 per 100,000**)

Bigger Problem for CDCR

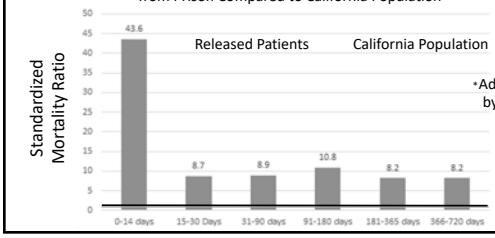
- Overdose deaths tripled between 2015 and 2019
- Majority of incarcerated individuals suffer from SUD

4

4

Problem: Risk of Death After Release

2013-2016 Overdose Deaths Among Persons Released from Prison Compared to California Population*



*Adjusted for age and sex by post-release period

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5

Problem: Incarceration and Trauma

The majority of incarcerated individuals:

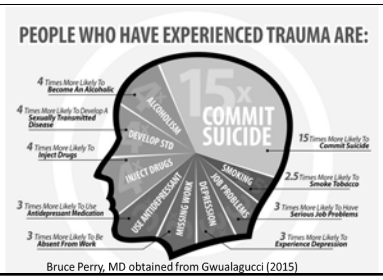
- Committed offenses to meet their drug needs
- Incarcerated for an alcohol or drug violation
- Committed offenses under the influence of alcohol/other drugs

The majority of incarcerated individuals have experienced significant TRAUMA including neglect, and physical, emotional and sexual abuse (often beginning in childhood)

6

6

Problem: Trauma, Incarceration & SUD



Bruce Perry, MD obtained from Gwualagucci (2015)

Incarcerated Adults:

- **62-87% men**
- **77-90% women**

Problem: SUD, Dopamine and Motivation

SUD involves the dysregulation of dopamine in certain parts of the brain:

- **65%** of state prisoners meet the clinical criteria for a SUD.
- Another **20%** were under the influence of drug and/or alcohol at the time of their crime but did not meet the clinical criteria for a SUD..
- Almost **100%** of those have adverse childhood events or suffer adverse adult events by just being incarcerated over and over again.

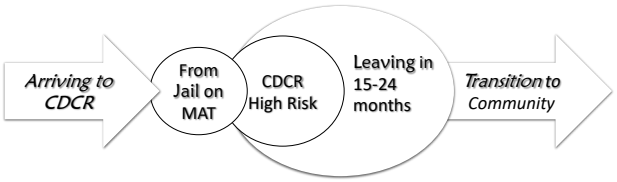
We need dopamine to survive. It is our motivation:

- Average normal dopamine levels range from 40 to 100 nanograms per deciliter.
- We know how much dopamine is required to get out of bed in the morning (approximately 50 nanograms per deciliter).
- While addiction initially provides elevated levels of dopamine - causing an unnatural "high" - eventually the brain stops producing dopamine.

Renee Kanan
Deputy Director
Medical Services

Solution: Who We are Treating for SUD

Patients at Highest Risk of Death



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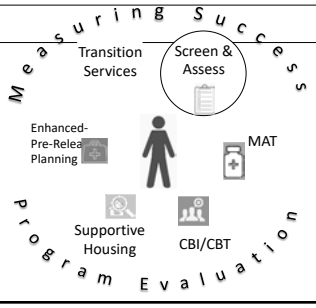
Solution: ISUDT Program Components



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Solution: SUD Screening and Assessment

Screen & Assess

NIDA Quick Screen by RNs
- Upon CDCR intake & those arriving on MAT
- 15-24 months prior to release
- High risk populations

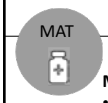
MAT

NIDA Modified Assist & ASAM Co-Triage by LCSW
- If positive Quick Screen
- Determines level of care for CBI
- Determines eligibility for MAT evaluation

As of June 1, 2022:
68,481 Screened for SUD, and 28,424 Assessed for SUD Treatment Needs

12

Solution: Medication Assisted Treatment



MAT Management by Primary Care

- Initial Evaluation by Central Team/ Champion Medical Provider
- 381 primary care providers (~99%) have X-waiver to treat at least 100 patients
- 14,125 Patients on MAT, which is mostly suboxone for OUD*

As of June 1, 2022:
~90% patients on MAT for > 6 months are managed by their Primary Care Provider

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Janene DelMundo
ISUDT Project Director

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Solution: Cognitive Behavioral Interventions

- The Division of Rehabilitative Programs (DRP) is responsible for providing Cognitive Behavioral Interventions.
- CBI uses different techniques to enhance skills and coping strategies in high-risk situations.
- CBI teaches patients how to improve emotional regulation, identify and resolve interpersonal conflicts, difficulties and avoid high-risk situations.

As of June 1, 2022:
8,805 Patients are receiving CBI

15

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Solution: Supportive Housing

- The CDCR /CCHCS are in the final stages of identifying supportive housing requirements.
- Developing direction and guidance to enable the institutions to initiate supportive housing, which is expected to begin in late summer 2022.

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Solution: Enhanced Pre-Release Planning

180 days prior to release
- Conduct an ASAM RISE assessment for all ISUDT participants to determine of level of care placement and SUD needs at the time of release for more effective transition treatment plans

60 days prior to release
- Integrated Weekly Pre-Release Meetings
- Patient interviews conducted to determine additional medical, mental health, and SUD needs

30 days prior to release
- Resource RN supplements release plan generated by CTP to meet medical & SUD transitional needs including MAT, CBI, medical, transportation, and housing
- Resource RN coordinates and partners with county and DAPO services to establish appointments; requires additional coordination with County Transition Services to improve communication, access to services, and data exchange

0-7 days prior to release
- Resource RN reviews release plan with patient; educates on Naloxone (Naloxone offered to all released residents) to reduce risk of overdose death within 2 weeks after release

17

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Solution: Transition Services

Patient Population Risk, Needs and Services
- 90% of patients will receive a level of care assessment with the ASAM RISE between 120-180 days prior to release
- 90% of eligible patients released will receive Naloxone
- 85% of patients released will have an established appointment with a health care primary care provider upon release in the community

Harm/Risk reduction plans:
- Food, Clothes, Shelter, Transportation and Employment
- 85% of patients will have a signed Release of Information prior to release
- 85% of patients will have Benefit Information on file prior to release

Counties participate in Data Sharing

18

18

Solution: Transition Services & CalAIM

Transition Services

California Advancing and Innovating Medi-Cal (CalAIM)

- Enhanced Care Managers (ECM)
- 90 Day Pre-Release Services

Transition Services

CDCR/CCHCS

- Community Transition to ECM
- Data Sharing

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Donna Kalauokalani
Deputy Medical Executive
Medical Services

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Measuring Success: Program Evaluation

Marketing is the study and management of exchange relationships. Marketing is the business process of creating relationships with and satisfying customers.

Impacts of the ISUDT Program

April 2022

21

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Measuring Success: ISUDT Program Goals

Goals:

- Reduce Overdoses, Infections, Save Lives
- Support Personal/Public Safety
- Promote Healthy Families/Communities

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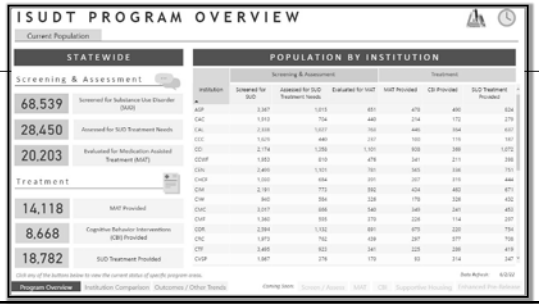
Measuring Success: Public Facing Dashboard



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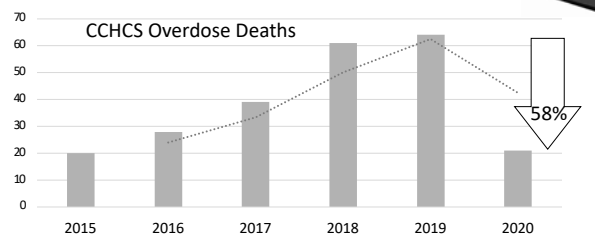
Measuring Success: Overdose Deaths



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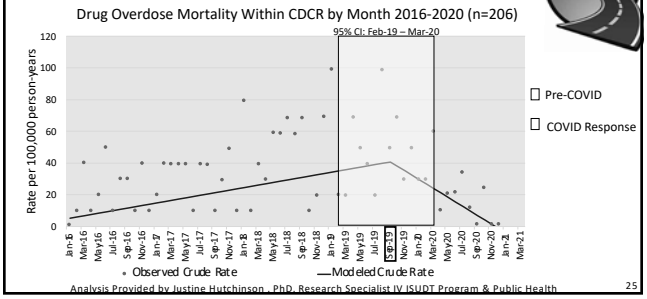
Program Evaluation: Impact on Overdose Deaths



Analysis Provided by Justine Hutchinson , PhD, Research Specialist IV ISUDT Program & Public Health

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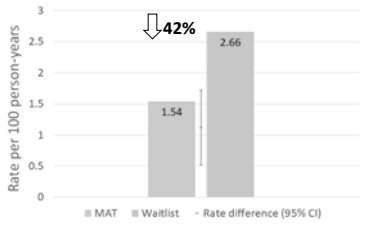
Program Evaluation: Impact on Overdose Deaths

Drug Overdose Rate Patients on MAT vs MAT Waitlist (n=14,648)
(Jan 2020 – March 2021)



Analysis Provided by Justine Hutchinson , PhD, Research Specialist IV ISUDT Program & Public Health

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Program Evaluation: Impact on Other Comorbidities

Hospitalizations for SUD Complications: (cellulitis, abscesses, other infections) ⇩ **21%**

Hepatitis C Reinfection Rates: (MAT participants vs non-participants) ⇩ **29%**

27

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Life Transformations

I personally think it is a great thing, we finally have a chance to get clean and stay that way, due to the program. They are giving us back our lives and our families. I'm new to the program. However, I've seen the change in others that have been a part of (ISUDT) since it started. They have stuff now; food, packages. It is theirs to keep, not sell for whatever. I look forward to the journey.
~ Sierra Conservation Center

Most of my life I have been using drugs and alcohol. I have been incarcerated most of my life, depriving my mother of a son, my daughter of a father and my grandchildren of a grandfather. I recently learned that, after 25 years, I may be released to live in transitional housing. I'm thankful for this program because I have my sobriety back and it's my responsibility to keep it. I want to be free with the people I love.
~ California Health Care Facility

Personally, the best way to go about staying on track with this program was finding motivation. Mine would be my mom. I've had enough time to sit back and think and grow. I came to realize I was wasting my life, going in circles. So when I came to the counseling I received from (staff), what stood out to me was honestly not to lie and cover up my tracks, as I've been doing for so long, because it DOESN'T work. So my best process for recovery is honesty (with everyone), motivation and wanting it for yourself.
~ Avenal State Prison participant

28

28

ISUDT Program Future Goals

- Service expansion to all CDCR residents (not just high-risk)
  - Those who arrive with brief sentences (7 - 14 months) challenging full participation
  - Aftercare groups for those who complete CBI but are not yet releasing
- Initiation of Supportive Housing (late Summer 2022)
  - Creation of pathway for peer mentorship
- Incorporate trauma informed care into the ISUDT Program
  - Screening for ACEs
  - LCSW processing groups
- Connecting to CalAIM to strengthen care coordination
  - Expanding viable linkages to social supports and services upon release

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Any
Questions
31

The International Consortium of Universities on Drug Demand Reduction – Opportunities for Improvement of Education in Addiction

—Cary Hopkins Eyles, MA, CAP, ICUDDR

ICUDDR
The International Consortium of Universities for Drug Demand Reduction

The International Consortium of Universities on Drug Demand Reduction: Opportunities for Improvement of Education in Addictions

Cary Hopkins Eyles, MA, CAP
Deputy Director

1

The Science Behind Addiction

- Historically substance use disorders have been mistreated as an acute, behaviorally centered condition
- Now we understand that SUDs are:
  - Are a primary and chronic disease
  - Centered in the brain
  - A disease with psychological and social components

- National Association of Addiction Treatment Providers

2

Major Achievements in Research on How to Reduce Drug Demand

- Drug treatment and drug prevention work when guided by practices that are scientifically sound
- 70 years of scientific research in the field with significant advances since 1990
- Impact of demand reduction extends beyond only drug use

3

Challenges to Reducing Drug Demand

- Scientific research is not being translated to the field
- Addiction remains misunderstood by many and non-evidence-based practices continue to be used
- The result of these practices is failure which leads patients, families, community members, and policy makers to believe that nothing works

4

Examples of Widely Used Non-Evidence Based Practices

- Detoxification with no follow up
- Religious education in isolation
- Cold showers, physical restraints, beatings, starvation and hard labor
- Media campaigns with no follow up

5

U.S. Treatment System Design

- Separate from general medicine and primary care
- Lack of knowledge about addiction by medical professionals
- Lack of responsibility for public health response to overdose
- Oriented around behavioral interventions

6

Another Example: Vietnam

- 06 Centers originally punished drug users
- System built around methadone to address opioids
- Rise of methamphetamine led to increase in 06 center use and need for behavioral treatments

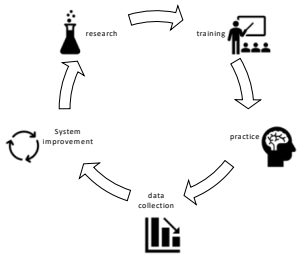
7

A Better Way

- We know what works
- A learning health system on a global scale can ensure we do not repeat our mistakes

8

A Global Learning Care Delivery System



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Rethinking Workforce

- Public health approach
- Professionalize prevention
- Increase knowledge of medical professionals
- Increase knowledge of counseling professionals (different titles and degrees in different countries)

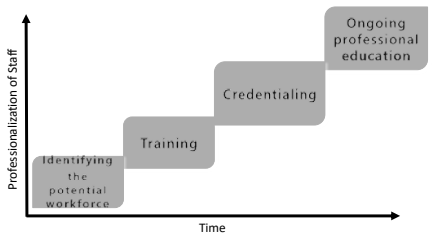
10

Rethinking Workforce

- International standards for care developed by WHO and UNODC
- Universal standards of education
- Universal curricula materials
- Shared learning between countries

11

Developing a Global Network of Treatment Professionals



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Evolution of ICUDDR

- Urgent need to enhance the professional workforce in addiction services
- Growing need for advanced/specialized training of addiction professionals
- Lack of addiction studies programs in university settings

13

History of ICUDDR

- Key question raised by university partners: **how to develop academic programs in addictions studies**?
  - How to create a new program/field of study?
  - How to generate student demand?
  - How to create a demand in the marketplace; will organizations seek out university-educated prevention/treatment experts?

14

History of ICUDDR

- INL engaged Colombo Plan and the Organization of American States (OAS) to organize a meeting of universities in March 2016
- Universities from North America, Asia, Middle East, Latin America, the Caribbean, and Europe discussed the benefits of such a network

COLOMBO PLAN

15

ICUDDR Membership

Member Countries

Global Membership
305 University members
80 Countries

16

ICUDDR Goals and Purposes

- Network Development: Develop a network of universities that are engaged in the design and implementation of academic curricula and programs in addiction prevention and treatment studies.

17

Activities

1. Regional work groups focus on needs of Asia-Pacific, Latin America, Africa and Europe
2. Annual conference designed to provide education and linkages between faculty across the globe
3. Outreach through newsletters, social media and social networking

18

ICUDDR Goals and Purposes

Education: Engage students and addiction professionals in academic and continuing education programs in addiction studies and promote career opportunities in prevention and treatment of addiction.

19

Activities

1. Consultation and training in new program development
2. Online courses to support educators in skill development
3. New this year: Training and learning collaboratives to support HRSA university grantees improve addiction education programs in the United States

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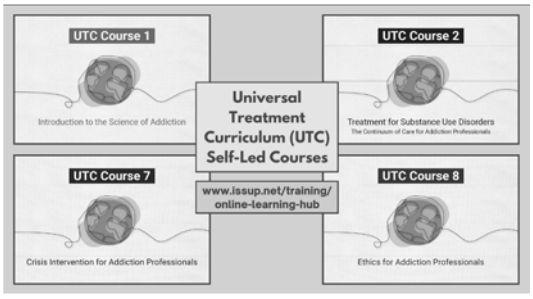

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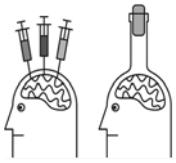
ICUDDR Goals and Purposes

Research: Advance applied research in addiction prevention and treatment.



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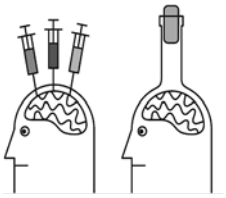
Activities

1. Learning Collaborative to develop skills in publishing research (funded by NIDA and INL)
2. Course development on writing publishable papers (NIDA funded)
3. New this year: Mini-grants program to support preliminary research or grant writing skill development and linkage to U.S. based research partners to develop proposals for NIDA International NOSI.



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ICUDDR NIDA Mini-Grant Awardees

We are pleased to announce the recipients of ICUDDR NIDA mini-grants to support researchers in preliminary data collection and analysis, or grant writing capacity.

ICUDDR

NIDA International Program

Dr. U Venkatesh
All India Institute of Medical Sciences (AIIMS)

Dr. Charles T Orjiakor
University of Nigeria

Dr. Stephen Asatsa
Catholic University of Eastern Africa

Dr. Valentine Ucheagwu
Nnamdi Azikiwe University Awka

Dr. Gladys Bett
University of Kabianga

24

ICUDDR Goals and Purposes

University-Community Outreach: Enhance partnerships among university programs in addiction studies, addiction professionals, and the addiction science research and practice communities.

25

Activities

International technology transfer centers (ITTC) provide needs assessment/gap analysis for government, develop training and technical assistance for systems and organizations and provide continuing education for professionals.

26

ICUDDR Goals and Purposes

Advocacy:

- Provide advocacy within universities for the development of academic programs in addiction studies.
- Advocate for policy change to support the development of academic programs in addiction studies, and to enhance addiction prevention and treatment services.
- Develop and advocate for guidelines and standards for academic programs in addiction studies.

27

Activities

1. Special edition of journal Adiktologie on education program development received so many articles that we will publish two special editions rather than one.
2. Work group developing standards for academic programs that train addiction counselors.

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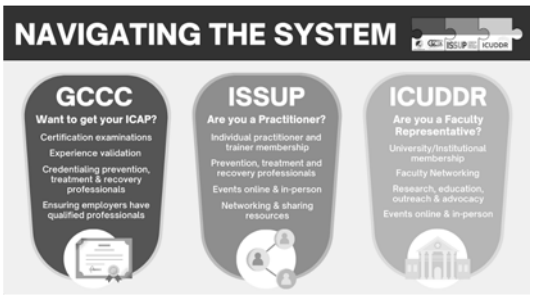

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Thank-you!

icuddr.org

ICUDDR

32

Motivational Interviewing: How to talk to people about change.

—Carla Marienfeld, MD, DFAPA, FASAM,
UCSD

ASAM THE MOTIVATIONAL INTERVIEWING Workshop

PRACTICE YOUR SKILLS, CHANGE YOUR PRACTICE

1

Workshop Faculty

Carla Marienfeld, MD, DFAPA, FASAM
HS Clinical Professor of Psychiatry
University of California, San Diego

Brian Hurley, MD, MBA, DFASAM (Chair)
Los Angeles County Department of Health Services
Los

2

Educational Objectives

Upon completion, participants should be able to:

1) Articulate the spirit of Motivational Interviewing.
2) Identify the core features of MI congruent interactions.
3) Recognize change talk and apply the basic MI skills of open-ended questions, affirmations, reflective listening, and summaries to selectively reinforce change talk.
4) Be empowered to identify and pursue further practice and training opportunities in the skills of MI beyond this workshop.

3

What is MI About?

"MI is about arranging conversations so that people talk themselves into change, based on their values and interests."

Miller and Rollnick, *Motivational Interviewing: Helping People Change, 3rd Edition*, 2013.

4

Capturing the Spirit: An Introduction to MI

5

2 fundamental ideas underlying MI

6

Fundamental idea # 1

If there are two sides to an issue, and you take up one, you are inviting the other person to take up the other

7

Fundamental Idea # 2

In any conversation about something where there are two sides, we tend to REMEMBER, and ACT ON the things we heard ourselves say

8

Put those ideas together

"Paradoxical effect of coercion"

9

Why Do People Change?

- Change is natural
- Change occurs all the time
- Treatment and interactions can facilitate change

Miller and Rollnick, *Motivational Interviewing: Preparing People for Change, 2nd Edition*, 2002.

10

Shifting the Approach

- "People are unmotivated"
vs. "People are always motivated for something"
- "Why isn't the person motivated?"
vs. "For what is the person motivated?"
- What does the person want?

Miller and Rollnick, *Motivational Interviewing: Preparing People for Change, 2nd Edition*, 2002.

11

A Range of STYLES

Directing ⟷ Guiding ⟷ Following

- Teach
- Assess
- Prescribe
- Lead

- Draw out
- Encourage
- Motivate

- Listen
- Understand
- Go along with

Miller and Rollnick, *Motivational Interviewing: Helping People Change, 3rd Edition*, 2013.

12

Spirit (PACE)

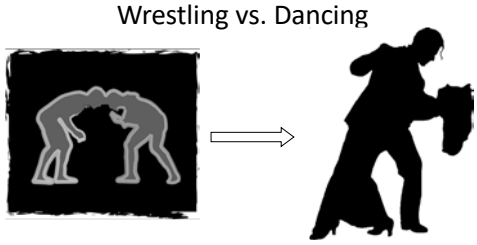
Emphasis on spirit, rather than techniques

- **P**artnership
- **A**cceptance
- **C**ompassion
- **E**vocation

Miller and Rollnick, *Motivational Interviewing: Helping People Change, 3rd Edition*, 2013.

13

The Spirit of MI: Wrestling vs. Dancing



Source of metaphor: Jeff Allison

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Building the Foundation: The Four Processes

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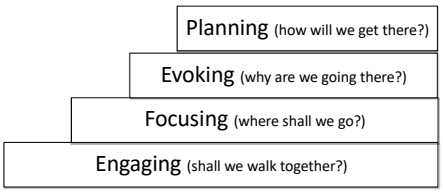
Four Foundational Processes of MI

Stair-step imagery because they are inherently somewhat linear…



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…and Yet also Recursive

- Engaging skills (and re-engaging) continue throughout MI
- Focusing is not a one-time event;
  - re-focusing is needed, and focus may change
- Evoking can begin very early
- "Testing the water" on planning may indicate a need for more of the above

17

It is the **confluence** of these four processes that best describes MI

18

The Core of MI: Skills and Change

19

"PEOPLE ARE GENERALLY BETTER PERSUADED BY THE REASONS WHICH THEY HAVE THEMSELVES DISCOVERED THAN BY THOSE WHICH HAVE COME IN TO THE MIND OF OTHERS"

- Blaise Pascal 17th century philosopher

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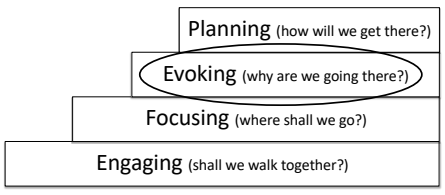
Four Processes in MI



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Core Skills (OARS + I&A)

- **O**pen Ended Questions
- **A**ffirming
- **R**eflecting (simple and complex)
- **S**ummarizing
- **I**nforming & **A**dvising (with permission, elicit-provide-elicit)

Miller and Rollnick, *Motivational Interviewing: Helping People Change, 3rd Edition*, 2013.

22

Open-Ended Questions

- Can't be answered by yes or no, or a one word response
- Invite the person to reflect and elaborate
- Help you understand another

23

Affirmation or Praise?

Affirmation (Acknowledgment)

- A statement of the existence or truth of something
- Recognize that which is good, including the person's worth as a fellow human being
- Often starts with "you"

Praise

- Expression of approval, commendation or admiration
- Suggests that you are in a position to give praise or blame
- More likely to start with "I"

24

Simple Reflections

Stays close to the speaker's words

- Repetition
- Rephrase

Great Blue Heron, Fort Myers, FL by C Davis

25

Complex Reflections

Garibaldi Lake, BC by C Davis

Makes a guess

- Paraphrase and then continue the paragraph
- Reflect feeling
- Use a metaphor
- Amplified reflection
- Double-sided reflection

26

The Iceberg Metaphor

Simple Reflection ⇨

Complex Reflection ⇨

27

Reflective Listening

"Right now, drinking doesn't help me feel better the way it used to. In fact I feel worse now."

- Echo: Drinking makes you feel worse now.
- Rephrase: So you find that drinking is no longer helping you to feel better, the way it used to.
- Double-sided: In the past, drinking helped you to feel better. Now it makes matters worse.
- Continuation: … and you want to find some way to feel better instead of drinking.

28

Reflection example

"My husband complains about my drinking all the time. He doesn't get how depressed and lonely I am."

Simple (rephrasing): "Complaining about your drinking misses the point of hov depressed and lonely you feel."

Complex (reflects the feeling): "You wish your husband understood the connection between your drinking and your loneliness."

29

"How I live my life is my own business."

"You will take a look at your options, and you will make the best decision for your life."

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"I know you mean well, but I don't need this medication anymore."

"We both want you to do well, and you are making progress towards your goals than may indicate different strategies that are good for your next steps."

31

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"I am tired of people going on about my smoking. I know it's bad for me, but so are a lot of things."

"Instead of nagging you about your smoking, there might be other ways people can help you address the smoking you already know is bad for you."

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"What do you doctors know about my life, you drive expensive cars and live in fancy houses, if I didn't smoke weed, I would kill myself."

"People who have income and privilege may find it harder to relate to being in such a bad situation that you would want to kill yourself and need to find anything to help you feel better."

33

33

Summaries

Selectively Summarize the Change Talk

34

Informing and Advising

ASK (elicit)

1. Permission to give information or advice

OR

2. What they already know or want to know

TELL (provide)

limited amount of information in clear language

ASK (elicit)

1. What do they think of what you said

OR

2. Teach-back to check for understanding

35

Change Talk

- Patient speech that favors movement in the direction of positive change
- Specific to a particular behavior change target

36

Change Talk

- Expressed in the context of a therapeutic interaction
  - Increases the patient's own motivation for change
  - Increases the probability that change will occur

37

Two Kinds of Change Talk

- **Preparatory** change talk
  - Like revving your engine

- **Mobilizing** change talk
  - Like driving away

38

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Preparatory Change Talk

FOUR KINDS

DARN

- **D**ESIRE to change (want, like, wish . .)
- **A**BILITY to change (can, could . .)
- **R**EASONS to change (if . . then)
- **N**EED to change (need, have to, got to . .)

40

Mobilizing Change Talk

REFLECTS RESOLUTION OF AMBIVALENCE

CATS

- **C**OMMITMENT (intention, decision, readiness)
- **A**CTIVATION (ready, prepared, willing)
- **T**AKING **S**TEPS

41

How to Elicit Change Talk:

- Ask Evocative Questions
- Use The Readiness Ruler (Importance and Confidence)
- Explore Decisional Balance
- Elaborate
- Query Extremes
- Look Back / Look Forward
- Explore Goals and Values

42

Importance Ruler

On a scale of 1-10, how important is it for you to change your drinking?

What makes you say 6 rather than, say, a 3?

43

Confidence Ruler

On a scale of 1-10, how confident are you that you can change your drinking?

What makes you say 4 rather than, say, a 2?

What would it take to go from a 4 to a 6?

44

Responding to Change Talk:

THE GOAL IS TO ELICIT MORE CHANGE TALK

- **E:** Elaborating: Asking for more information, more detail, in what ways, an example, etc.
- **A:** Affirming – commenting positively on the person's statement
- **R:** Reflecting, continuing the paragraph, etc.
- **S:** Summarizing – collecting bouquets of change talk

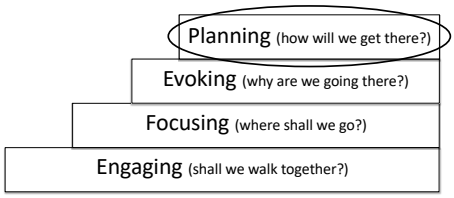
45

Sustain Talk

- You will get more of whatever you reflect
- If you reflect sustain talk, you are likely to hear more sustain talk and vice versa
  - i.e., "continuing the paragraph"

46

Four Processes in MI



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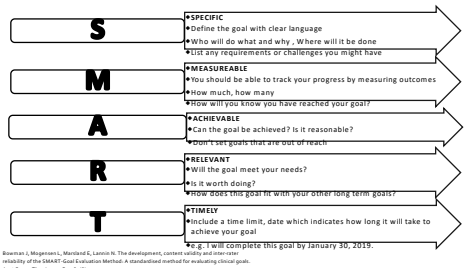
SMART



Bowman J, Mogensen L, Marsland K, Lannin N. The development, content validity and inter-rater reliability of the SMART-Goal Evaluation Method: A standardised method for evaluating clinical goals. Aust Occup Ther J. 2015 Dec;62(6):414-7.

48

Video: TV Psychology

49

50

What Happens When the Patient Gives Reasons NOT to Change?

51

The Two Elements of "Resistance"

- Sustain Talk
- Discord

52

Sustain Talk

- You will get more of whatever you reflect
- If you reflect sustain talk, you are likely to hear more sustain talk and vice versa
  - i.e., "continuing the paragraph"

53

Responding to Sustain Talk

- Simple reflection
- Amplified reflection
- Double-sided reflection
- Coming alongside (agreeing without reserve)
- Reframing (suggesting a different meaning or perspective)
- Agreeing with a twist (reflection + reframe)
- Running head start
- Emphasizing autonomy

54

Recognizing Discord: “Smoke Alarms”

- Defending
- Squaring off
  - You will hear lots of “you”,
    - “You are wrong”, “you don’t know…”, you don’t care…”
- Interrupting
- Disengagement

55

Dancing with Discord

- Simple reflection = basic/default strategy
- All strategies for responding to sustain talk, plus:
  - Apologizing: does not cost anything…
  - Affirming: genuinely, communicate our respect for the patient
  - Shifting focus: get away from the difficult topic

56

MI ASAM THE MOTIVATIONAL INTERVIEWING Workshop

57

Lots More Training and Info Out There

Motivational Interviewing Network of Trainers (MINT):
Resources for clinicians, researchers, and trainers

www.motivationalinterviewing.org
(or Google: "motivational interviewing")

58

And Remember!

"Retaining curiosity and compassion is the raft upon which all else floats!"

Miller and Rollnick, *Motivational Interviewing: Helping People Change, 3rd Edition*, 2013.

59

Acknowledgements

- William Miller and Stephen Rollnick
- Our MI Mentors and Teachers
- Motivational Interviewing Network of Trainers (M.I.N.T.)
- Our Patients

60

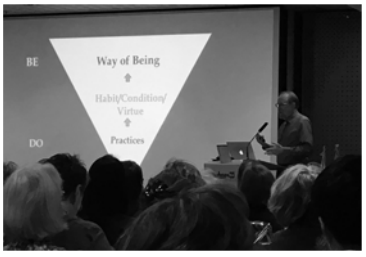
ASAM
THE MOTIVATIONAL INTERVIEWING Workshop

61

"Doing MI" vs. "Being MI"

- What's the difference?
- *"About 10 Years"*

Bill Miller



62

Alcohol and Drug Problems are About 50% Genetic: How that leads to improved prevention

—Marc Schuckit, MD, UCSD

1

2

COMPLEX GENETIC INFLUENCES

- **Alcohol use disorders**
- **Type 2 diabetes**
- **Cancer**
- **Liver disease**
- **MI**

3

PRESENTATION COVERS

Background

Low sensitivity to alcohol

- **Search for genes and environment**

Prevention efforts

Next steps

4

PRESENTATION COVERS

Background

Low sensitivity to alcohol

- **Search for genes and environment**

Prevention efforts

Next steps

5

GENES AND AUDs

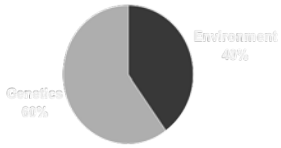
4 x ↑offspring risk

4 x ↑ if adopted out

Risk > for MZ vs DZ twins

6

ALCOHOLISM RISK



Multiple Characteristics*

Each with Genes & Environment

7

RISK FACTORS

Alcohol metabolizing enzymes

Sensitivity / Level of Response*

Impulsivity

Psychiatric disorders

8

PRESENTATION COVERS

Background

Low sensitivity to alcohol

- Search for genes and environment

Prevention efforts

Next steps

9

LOW LEVEL OF RESPONSE (LR)

1.Less change when drink

2.More drinks needed for effects

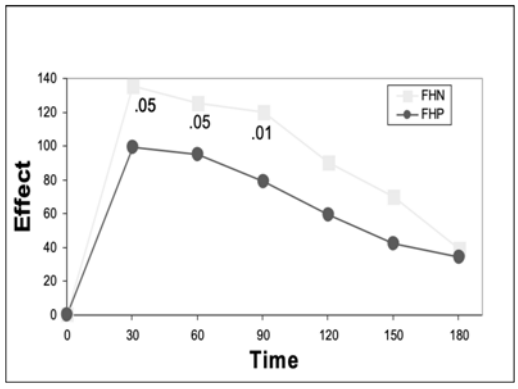
We measure both

10

LR RATIONALE

- ✓ **Youth drink for effects**
- ✓ **If need more for effect**
  will drink more
- ✓ **Then heavy drinking affects**
  Peers
  Expectations
  Stress

11



12

SELF REPORT OF EFFECTS

	SRE TIME FRAME:		
DRINKS NEEDED TO:	1st 5 Times	Recent 3 Months	Heaviest
Feel Effect			
Feel Dizzy or Slur Speech			
Stumble			
Fall Asleep			

13

CORRELATES: AGE 12

Maximum drinks	.49
Frequency	.11
Problems	.28

14

USING DATA FOR PREVENTION

- Many genes affect LR
- Each gene explains <2% of risk
- Many dangers of changing genes
- Better to focus on environment
- Environment easier to change

15

LR & ENVIRONMENT

LR and AUDs are affected by:

Age Sex Race Personality

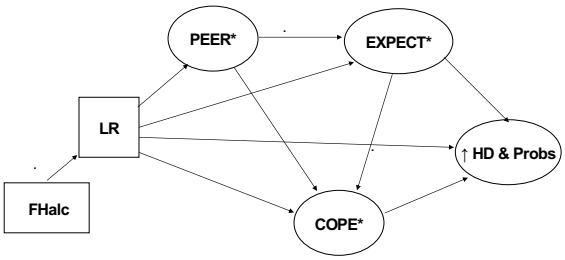
Peer substance use

Positive expectations of being drunk

How handle stress

Other characteristics (mediators)

16



17

LR IS:

- **Genetic (40-60%)**
- **Observed early (age 12)**
- **Mediators: peers, expect, etc**
- **Predicts heavy drink & Dx**

18

PRESENTATION COVERS

Background

Low sensitivity to alcohol

- **Search for genes and environment**

Prevention efforts

Next steps

19

PREVENTION STUDY (N=500)

Questionnaire to students

- **~73% response**
- **Select matched low and high LR**

3 prevention groups

- **LR-Based (LRB)**
- **State of the Art (SOTA)**
- **Control**

Four 50-min Internet sessions

20

8 EVALUATIONS OVER 55 WEEKS

Baseline & every 1-3 months

90% had all videos + 7+ evaluations

Record alcohol:

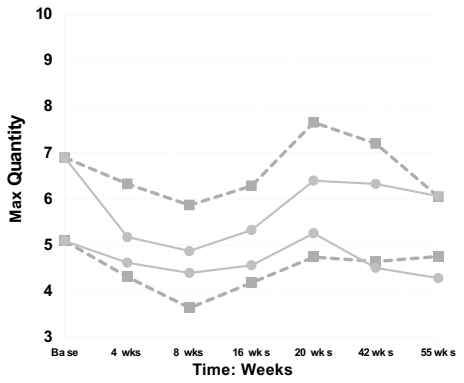
- **Frequency, usual & max quant, probs**

Compare videos vs controls

- **LR-based vs general info videos**

21

Maximum Drinks



22

FUTURE STEPS

Find easier LR measures (connectivity & fMRI)

Add more predictors (impulsivity & sensation seek)

Add more mediators (connectivity)

Polygenic risk scores

Test in military, grade schools, etc

23

24

The Rapidly Changing Nature of the U.S. Polydrug Epidemics

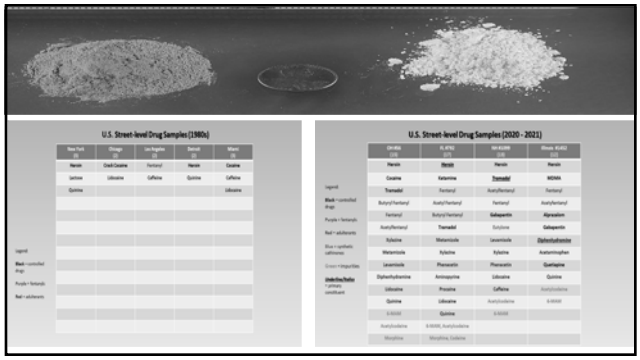
—Thom Browne, Jr., MA, Colombo Plan

The Rapidly Changing Nature of the U.S. Polydrug Epidemics

UCSD Summer Clinical Institute in Addiction Studies

Thom Browne, Jr.
President & CEO
Rubicon Global Enterprises
Colombo Plan Secretariat
June 2022

1



2

Constituents in U.S. Drug Samples
(Opioids + Cocaine)

# Constituents	Percent of Constituents in Drug Samples by State										
	USA	DC	PA	VT	KY	NH	CA	OH	NY	FL	IL
5 – 8	(30%)	(20%)	*(30%)*	(20%)	*(31%)*	*(46%)*	*(54%)*	(15%)	*(39%)*	*(35%)*	(21%)
9 or >	(32%)	*(66%)*	*(43%)*	(54%)	*(26%)*	(19%)	(15%)	(23%)	(15%)	(14%)	*(25%)*

3

Mortality Perspective

4

Overdose deaths reached record levels, with 107,000 estimated people dying from a drug overdose in the year ending January 2021. This translates to 1 US overdose death every 5 minutes*

*U.S. National Center for Health Statistics (NCHS), CDC, Provisional Drug Overdose Death Counts, May 11, 2022

5

Opioid overdose increased 23%

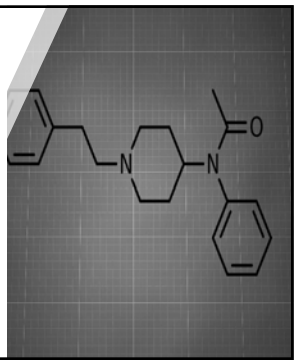
Cocaine overdose increased 23%

Meth & other stimulants overdose increased 34%

6

Fentanyl

- ***Fentanyl*** is 80 to 100 times stronger than morphine and 50 times more potent than heroin
- ***Acetyl Fentanyl*** (15 X morphine)
- ***Butyrfentanyl*** (7 X morphine)
- ***Carfentanil*** is estimated to be 10,000 X more potent than morphine
- Fentanyl's effects include ***respiratory depression*** and ***arrest***



7

FENTANYL ANALOGS

- **Only 200+ have been synthesized and studied**
- **There is potential for more than 1400 analogs of fentanyl to exist**

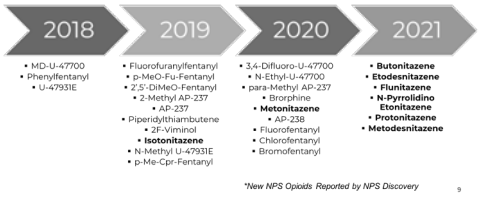
8

NOVEL OPIOIDS
[Benzimidazole or "Nitazene"]

- Etonitazene
  (1,000 – 1,500 X morphine)
- Isotonitazene
  (500 X morphine)
- Metonitazene
  (100 X morphine)
- Protonitazene
  (200 X morphine)

9

Novel Synthetic Opioids 2018 - 2021



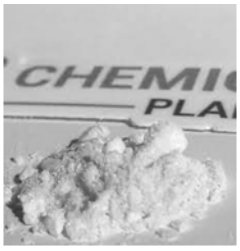
*New NPS Opioids Reported by NPS Discovery

9

cfsre

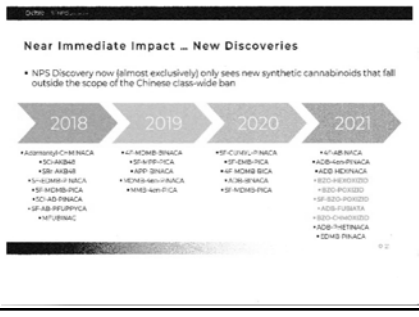
10

5F-MDMB-PICA



- 340 reports by U.S. forensic labs between 2016 and 2018
- Serious adverse effects including **death** have been reported
- In August 2018, **in excess of 47 overdoses** were reported in New Haven, Connecticut following the use of 5F-MDMB-PICA. Analysis of drug evidence from the overdose event confirmed the presence of the synthetic cannabinoids 5F-ADB and FUB-AMB.
- In September 2018, in Washington, DC, **at least 244 overdoses** were reported following use of a synthetic cannabinoid product. Analysis of drug evidence from the overdose event confirmed the presence of the synthetic cannabinoids 5F-MDMB-PICA, FUB-AMB, and 5F-ADB.

11



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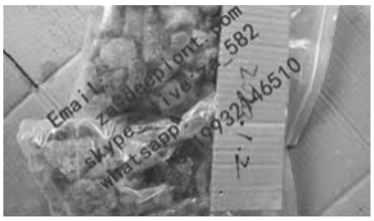
Eutylone



- **Synthetic Cathinone (bath salts)**
- **Pharmacological effects similar to cocaine, meth, MDMA**
- **Adverse effects include hypertension, tachycardia, and death**
- **From 29 U.S. reports in 2017 to 3,958 in 2019**

13

116 Novel Synthetic Compounds Detected 2018 - 2021

- Opioids – 34
- Cannabinoids – 28
- Stimulants – 25
- Hallucinogens – 14
- Benzodiazepines – 7
- Opioid Precursors – 6
- Miscellaneous - 2

14

Adulterants Linked to Overdose Death

2004–2009
Acetaminophen (Tylenol) – Texas from 2004 – 2009

2016
Diltiazem – NE United States & Guayaquil, Ecuador in 2016

2004–2009
Diphenhydramine (Benadryl) - Texas from 2004 – 2009

15

FDA Warning (December 2019)

FDA warned that serious breathing difficulties may occur in persons using ***Gabapentin*** (an Rx painkiller / anticonvulsant drug) *with other drugs that depress the CNS (****Opioids, Benzodiazepines****), increasing the risk of respiratory depression and death*

16

				Gabapentin (1.93, 22408888.30)
355	El Paso	2/15/2019	Alprazolam Etizolam	Alprazolam (2.95, 6156303363.23) - Gabapentin (1.95, 3688514.72)
356	El Paso	2/16/2019	Alprazolam Etizolam	Alprazolam (2.94, 3877957026.50) - Gabapentin (1.93, 22170083.03)
357	El Paso	2/17/2019	Alprazolam Etizolam	Alprazolam (2.94, 4062835377.99) - Gabapentin (1.95, 26660059.25)
358	El Paso	2/18/2019	Alprazolam Etizolam	Alprazolam (2.94, 5239632041.13) - Gabapentin (1.93, 32356870.36)
359	El Paso	2/19/2019	Alprazolam Etizolam	Alprazolam (2.94, 4431664193.64) - Gabapentin (1.95, 31767585.26)
360	El Paso	2/20/2019	Alprazolam Etizolam	Alprazolam (2.94, 3936078130.55) - Gabapentin (1.94, 22872340.29)
361	El Paso	2/21/2019	Alprazolam Etizolam	Alprazolam (2.94, 4527741556.56) - Gabapentin (1.94, 27541672.68)
362	El Paso	2/22/2019	Alprazolam Etizolam	Alprazolam (2.94, 2679258555.15) -
363	El Paso	2/23/2019	Alprazolam Etizolam	Alprazolam (2.94, 5414327148.45) - Gabapentin (1.93, 30127444.08)
364	El Paso	2/24/2019	Alprazolam Etizolam	Alprazolam (2.94, 4434078149.62) - Gabapentin (1.95, 31463297.18)
365	El Paso	2/25/2019	Alprazolam Etizolam	Alprazolam (2.94, 5182228987.72) - Gabapentin (1.93, 32406127.39)
366	El Paso	2/26/2019	Alprazolam	Alprazolam (2.94, 9045507850.95)

17

One Fentanyl in Street-level Drug Samples (2016 - 2017)

VT #156	VT #160	KY #26	KY #105
Heroin	Heroin	Heroin	Heroin
Cocaine	Cocaine	Cocaine	Cocaine
Tramadol	Fentanyl	Tramadol	Fentanyl
Ketamine	Levamisole	Fentanyl	4-ANPP
Fentanyl	Acetaminophen	4-ANPP	Acetaminophen
Aminopyrine	Quinine	Aminopyrine	Diphenhydramine
Diltiazem	Lidocaine	Diphenhydramine	Levamisole
Quinine	Procaine	Quinine	Phenacetin
Quetiapine	Caffeine	Lidocaine	Quinine
Caffeine	Acetylcodeine	Metamizole/Dipyrone	Caffeine
Acetylcodeine	6-MAM	Caffeine	Acetylcodeine
6-MAM	Papaverine	Acetylcodeine	6-MAM
Noscapine	Noscapine	6-MAM	Papaverine
Papaverine		Papaverine	Noscapine
Morphine		Noscapine	

Legend:

Black = controlled drugs

Purple = fentanyls

Red = adulterants

Green = impurities from heroin manufacturing process

18

Multiple Fentanyl Compounds in Seized Drug Samples (2020 - 2021)

NH #1074 (2)	NH #1198 (3)	OH #22 (3)	OH #130 (2)	Illinois #1555 (2)
Fentanyl	***Fentanyl***	Heroin	Heroin	Heroin
Acetyl Fentanyl	Acetyl Fentanyl	Cocaine	Oxycodone	***Diphenhydramine***
Tramadol	Butyryl Fentanyl	Ketamine	Fentanyl	Fentanyl
Xylazine	Levamisole	Fentanyl	Acetyl Fentanyl	Acetyl Fentanyl
Levamisole	Tramadol	Acetyl Fentanyl	Tramadol	Tramadol
Phenacetin	Metamizole	Butyryl Fentanyl	Levamisole	Levamisole
Lidocaine	Heroin	Levamisole	Metamizole	Metamizole
Quinine	Acetaminophen	Metamizole	Xylazine	Xylazine
Caffeine	Phenacetin	Tramadol	Phenacetin	Ketamine
	Procaine	Xylazine	Quinine	Quetiapine
	Caffeine	Aminopyrine	Diphenhydramine	Acetaminophen
	Codeine	Lidocaine	Ephedrine	Amionpyrine
	Morphine	Quinine	Lidocaine, Procaine	Trazodone
	Acetylcodeine	Morphine, Caffeine, Ephedrine	Codeine, Morphine	Codeine, Morphine
	6-MAM	6-MAM, Acetylcodeine	6-MAM, Codeine, Acetylcodeine	6-MAM, Acetylcodeine

Legend:

Black = drugs, adulterants, and impurities

Purple = fentanyl compounds

Underline/Italics = primary constituent

19

Fentanyls, Cathinones & Cannabinoids in Same Drug Sample (2021)

Illinois #399 (3)	Florida #708 (2)	Florida #760 (2)	Illinois #1480 (3)	
Eutylone	***Methamphetamine***	***Methamphetamine***	***Heroin***	
SF-MDMB-PICA	Fentanyl	Fentanyl	Fentanyl	
Fentanyl	Eutylone	Eutylone	Acetylfentanyl	
Tramadol	Xylazine	Cocaine	Eutylone	
Caffeine		Ketaminine	Quinine	
Diphenhydramine		Lidocaine	Morphine	
Quinine		Phenacetin	Acetylcodeine	
Acetylcodeine			6-MAM	
6-MAM			Codeine	
			Thebaine	
			Diphenhydramine	

Legend:

Black = drugs, adulterants, and impurities

Purple = fentanyl compounds

Red = synthetic cathinone

Green = synthetic cannabinoid

Underline/Italics = primary constituent

20

Morbidity Perspective

21

Levamisole is Toxic

- **Levamisole** is a veterinary pharmaceutical used primarily to treat worm & parasitic infestations in livestock.
- It has also been used experimentally and historically to treat various autoimmune disorders and cancers in humans.
- Withdrawn from the Canadian (2003) and USA (1999) markets due to **toxicity.**
- Results in a decrease of white blood cells that can ***lower immunity and increase opportunist infections*** **(e.g., CV-19).**

22

Metamizole/Dipyrone

Metamizole is a pain reliever, fever reducer, and spasm reliever

Side effect of agranulocytosis (a dangerously suppressed immune system that places user at very high risk for serious infections due to a severely lowered white blood cell count)*

Combining dipyrone with opiates like heroin results in analgesic potentiation and produces supra-additive effects**

* Brack A, Rittner HL, Schäfer M (March 2004). "Nichtopioidanalgetika zur perioperativen Schmerztherapie" [Non-opioid analgesics for perioperative pain therapy. Risks and rational basis for use]. Der Anaesthesist (in German). 53 (3): 263–80.

** Hernandez-Delgadillo G & Cruz S. (2004). Dipyrone potentiates morphine-induced antinociception in dipyrone-treated and morphine-tolerant rats. Eur. J. of Pharmacol. 500, 67-73.

23

Aminopyrine

Banned analgesic & anti-inflammatory

Dramatic decrease in white blood cells, leading to increased susceptibility to infection, suppressing immune function and the body's ability to fight off even minor infections*

People who smoke coca paste or crack cocaine contaminated by aminopyrine can experience overwhelming, rapidly-developing, life threatening infections* **(e.g., CV-19**)

_____

* Gilman AG, et al (eds.). Goodman and Gilman's *The Pharmacological Basis of Therapeutics*. 8th ed. New York, NY. Pergamon Press, 1990., p. 655.

24

Phenacetin

- Phenacetin induces hemolytic anemia, a disorder in which red blood cells are destroyed prematurely, affecting oxygen transfer*
- Respiratory depression & cardiac arrest may ensue from lack of oxygen
- The chronic use of phenacetin is associated with nephrotoxicity and analgesic nephropathy (kidney damage)**
- In one prospective study, phenacetin was associated with an increased risk of death due to renal diseases, cancers, and cardiovascular diseases***

*Millar J, et al, Phenacetininduced hemolytic anemia. Can Med Assoc J (1972) Apr 8; 106(7): 770–775

** C. Cole, Liverpool JohnMooresUniversity, Centre for Public Health, CUT: A Guide to Adulterants, Bulking Agents and Other Contaminants Found in Illicit Drugs, Centre for Public Health, Faculty of Health and Applied Social Sciences, Liverpool JohnMooresUniversity, Liverpool, 2010

***Dubach et al (1991) An epidemiologic study of abuse of analgesic drugs. Effects of phenacetin and salicylate on mortality and cardiovascular morbidity (1968 to 1987). N Engl J Med. 324(3): 155–60

25

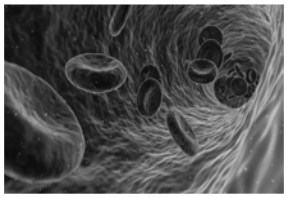
Phenacetin in Drug Samples

Drugs	Percent of Phenacetin in Drug Samples by State													
	DC	PA	VT	KY	NH	CA	OH	NY	FL	IL	VA	MD	TX	
Cocaine	*(67%)*	*(49%)*	(76%)	(21%)	*(95%)*	*(76%)*	(13%)	*(53%)*	*(60%)*	(30%)	(40%)	(28%)	(4%)	
Opioids	*(52%)*	(21%)	(42%)	(4%)	*(51%)*	*(60%)*	(6%)	(3%)	*(45%)*	(13%)	-	(20%)	-	
Meth	*(42%)*	(6%)	(44%)	-	-	(24%)	-	-	(9%)	(2%)	-	-	-	
PCP	(22%)	-	-	-	-	-	-	-	-	-	-	-	-	

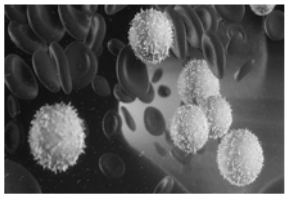
26

Adulterant Effects on Health

Phenacetin Depletes Red Blood Cells, Damages Kidneys, and Bladder Cancer



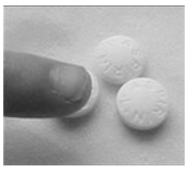
Levamisole, Metamizole & Aminopyrine Deplete White Blood Cells



27

Severe Health Problems Accelerated with Adulterated Drugs versus Adulterated Aspirin

Health Problems from Aspirin Containing Phenacetin Took Years to Appear. Aspirin was Taken as needed for Pain in the 1960s



Crack Used 15-30 X day X 7 days/week X 6 months
Today Health Problems Appear within Months

28

Multiple Adulterants in Street-level Drug Samples (2016 - 2017)

VT #156	VT #160	KY #26	KY #105
Heroin	Heroin	Heroin	Heroin
Cocaine	Cocaine	Cocaine	Cocaine
Tramadol	Fentanyl	Tramadol	Fentanyl
Ketamine	Levamisole	Fentanyl	4-ANPP
Fentanyl	Acetaminophen	4-ANPP	Acetaminophen
Aminopyrine	Quinine	Aminopyrine	Diphenhydramine
Diltiazem	Lidocaine	Diphenhydramine	Levamisole
Quinine	Procaine	Quinine	Phenacetin
Quetiapine	Caffeine	Lidocaine	Quinine
Caffeine	Acetylcodeine	Metamizole/Dipyrone	Caffeine
Acetylcodeine	6-MAM	Caffeine	Acetylcodeine
6-MAM	Papaverine	Acetylcodeine	6-MAM
Noscapine	Noscapine	6-MAM	Papaverine
Papaverine		Papaverine	Noscapine
Morphine		Noscapine	

Legend:

Black = controlled drugs

Purple = fentanyls

Red = adulterants

Green = impurities from heroin manufacturing process

29

Multiple Lethal & Toxic Compounds in Seized Drug Samples (2021)

PA #1.4	PA #1	PA #10.4	PA #16.1	PA #25
Fentanyl	Fentanyl	Fentanyl	Fentanyl	Fentanyl
Alpha-methyl Acetyl Fentanyl	Para-Fluorofentanyl	Para-Fluorofentanyl	Ortho-Fluorofentanyl	Ortho-Fluorofentanyl
4-ANPP	Thiofentanyl	Valeryl Fentanyl	Valeryl Fentanyl	Valeryl Fentanyl
Phenethyl 4-ANPP	Valeryl Fentanyl	Phenethyl 4-ANPP	Phenethyl 4-ANPP	Phenethyl 4-ANPP
5-Fluoro ADB	4-ANPP	4-ANPP	4-ANPP	4-ANPP
Heroin	Phenethyl 4-ANPP	Heroin	Heroin	Heroin
Phenylbutazone	Heroin	Cocaine	Phenylbutazone	Cocaine
Xylazine	Cocaine	Phenylbutazone	Xylazine	Phenylbutazone
Diphenhydramine	Phenylbutazone	Xylazine	Levamisole	Xylazine
Lidocaine	Xylazine	Tramadol	Tramadol	Tramadol
Procaine	Tramadol	Caffeine	Lidocaine	Lidocaine
Caffeine	Lidocaine	Lidocaine	Caffeine	Caffeine
Dextromethorphan	Caffeine	Melatonin	Melatonin	Melatonin
6-MAM, Acetylcodeine	Melatonin	Codeine, Noscapine, Papaverine	Codeine, Noscapine, Papaverine	Codeine, Noscapine, Papaverine
Papaverine, Noscapine	6-MAM, Acetylcodeine	6-MAM, Acetylcodeine	6-MAM, Acetylcodeine	6-MAM, Acetylcodeine

Legend:

Black = controlled drugs

Purple = fentanyl compounds

Orange = synthetic cannabinoid

Red = adulterants

Green = impurities from heroin manufacturing process

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Illinois (Cook): Street-level Drug Samples That Deplete WBCs

Cook #1511 (3)	Cook #1554 (3)	Cook #1555 (4)	Cook #1486 (0)	Cook # 1452 (1)
Heroin	***Heroin***	***Diphenhydramine***	***Diphenhydramine***	***Diphenhydramine***
Acetyl Fentanyl	Acetylfentanyl	Heroin	Heroin	Heroin
Fentanyl	Tramadol	Ketamine	Fentanyl	Fentanyl
Tramadol	Xylazine	Fentanyl	Tramadol	Acetylfentanyl
Levamisole	Metamizole	Acetylfentanyl	PCP	Alprazolam
Metamizole	Aminopyrine	Xylazine	Lidocaine	Gabapentin
Aminopyrine	Diphenhydramine	Tramadol	Ephedrine	MDMA
Cocaine	Quinine	Levamisole	6-MAM	Quetiapine
Ketamine	Procaine	Metamizole		Quinine
Phenacetin	Morphine	Aminopyrine		Acetaminophen
Quinine	Acetylcodeine	Quetiapine		Acetylcodeine
Diphenhydramine	6-MAM	Trazadone		6-MAM
Lidocaine		Acetaminophen		
Morphine, 6-MAM		Morphine, 6-MAM		
Acetylcodeine, Codeine		Acetylcodeine, Codeine		

Legend:

Black = drugs, adulterants, and impurities

Red = may require more naloxone

Green = FDA warning

Yellow = depletes WBCs

Underline/Italics = primary constituent

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Overdose Prevention

Naloxone Administration

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NALOXONE

An opioid antagonist designed to rapidly reverse opioid overdose (heroin, fentanyl, etc.)

Administered in 2 – 3 minute intervals

FDA in April 2021 approved a higher dose naloxone HCl nasal spray product to treat opioid overdose

The new product delivers 8 milligrams (mg) of naloxone into the nasal cavity. FDA had previously approved 2 mg and 4 mg naloxone nasal spray products

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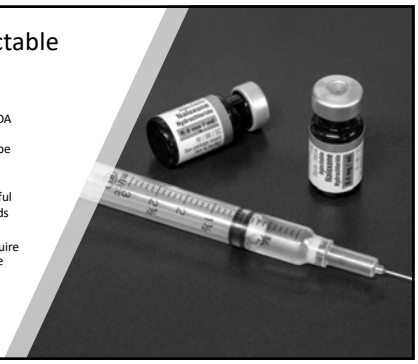
High-Dose Injectable Naloxone

- Approved in April 2022 by FDA as emergency therapy in settings where opioids may be present
- In response to rise of powerful synthetic fentanyl compounds
- These compounds often require multiple doses of lower-dose naloxone products



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Compounds that can Affect Naloxone Administration

- Benzodiazepines (Alprazolam) [1]
- Tramadol [2]
- Metamizole/Dipyrone [3]
- Xylazine [4]
- Levamisole [5]
- Fentanyl & Fentanyl Analogs [6]
- Novel Opioids (U-47700) [7]

[1] Bureau of Justice Assistance. Law Enforcement Naloxone Toolkit. BJA National Training and Technical Assistance Center.

[2] Rossi, S, ed. (2013). Australian Medicines Handbook (2013 ed.). Adelaide: The Australian Medicines Handbook Unit Trust. ISBN 978-0-9805790-9-3.

[3] Hernandez-Delgadillo G & Cruz S. (2006). Endogenous opioids are involved in morphine and dipyrone analgesic potentiation in the tail flick test in rats. Eur. J. of Pharmacol. 546, 54-59.

[4] Nunes, J et al. Xylazine, a veterinary tranquilizer, detected in 42 accidental fentanyl intoxication deaths. Am. J. For. Med. & Pathology. March 2021, Vol 42, Issue 1, p 9 -11.

[5] Ruiz-Quillone AK, Browne TJ, Espinosa-Riquer Z, GonzalezEspinosa C, Cruz SL. Levamisole as Opioid Adulterant in Mice: Lethal, Analgesic and Hematological Effects. National Institute on Drug Abuse 2020

[6] O'Donnell JK, Halpin J, Mattson CL, Goldberger BA, Gladden RM. Deaths Involving Fentanyl, Fentanyl Analogs, and U-47700 — 10 States, July–December 2016. MMWR Morb Mortal Wkly Rep 2017;66:1197–1202.

[7] Indiana State Department of Health. Indiana Health Alert Network Advisory—August 25, 2016. Overdoses from U-47700 Increasing in Indiana.

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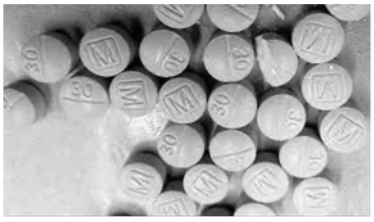
Fentanyl & Fentanyl Analogs Effect on Naloxone



- **Fentanyl and fentanyl analogs are highly potent and fast-acting synthetic compounds.**
- **They can trigger rapid progression to loss of consciousness and death.**
- **Therefore, they might require high doses of naloxone.***

* O'Donnell JK, Halpin J, Mattson CL, Goldberger BA, Gladden RM. Deaths Involving Fentanyl, Fentanyl Analogs, and U-47700 — 10 States, July–December 2016. MMWR Morb Mortal Wkly Rep 2017;66:1197–1202.

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Xylazine

- Xylazine is used in vet medicine an animal sedative* **
- In humans, xylazine acts as a CNS depressant; can cause slowed heart rate, respiratory depression, hypotension, and other changes in cardiac output * **
- As an adulterant in heroin, cocaine, and fentanyl, it can potentiate sedation & respiratory depression, increasing risk of fatal overdose***
- Naloxone might be less effective in fully reversing an overdose****
- Users report xylazine extends the high of fentanyl (which is shorter than heroin)*****

*Ruiz-Colón K, Chavez-Arias C, Díaz-Alcalá JE, Martínez MA (July 2014). "Xylazine intoxication in humans and its importance as an emerging adulterant in abused drugs: A comprehensive review of the literature". Forensic Science International. 240: 1–8.

**Reyes JC, Negrón JL, Colón HM, Padilla AM, Millán MY, Matos TD, Robles RR (June 2012)."The emerging of xylazine as a new drug of abuse and its health consequences among drug users in Puerto Rico". Journal of Urban Health. 89 (3): 519–26.

***Wong SC, et al. Concurrent detection of heroin, fentanyl, and xylazine, in seven drug-related deaths reported from the Philadelphia Medical Examiner's Office. J Forensic Sci 2008;52:495-8.

****Kariisa M, et al. Xylazine detection and involvement in drug overdose deaths – United States, 2019. MMWR, September 17, 2012, Vol. 70, No. 37

*****Friedman J, et al. Xylazine spread across the US: A growing component of the increasingly synthetic and polysubstance overdose crisis. Drug and Alcohol Dependence, Volume 233, 1 April 2022, 109380

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U.S. Street-level Drug Samples That Can Affect Naloxone (2020 - 2021)

NH #1074 (5)	NH #1198 (6)	OH #22 (7)	OH #130 (6)	Illinois #1555 (6)
Fentanyl	***Fentanyl***	Heroin	Heroin	Heroin
Acetyl Fentanyl	Acetyl Fentanyl	Cocaine	Oxycodone	***Diphenhydramine***
Tramadol	Butyryl Fentanyl	Ketamine	Fentanyl	Fentanyl
Xylazine	Levamisole	Fentanyl	Acetyl Fentanyl	Acetyl Fentanyl
Levamisole	Tramadol	Acetyl Fentanyl	Tramadol	Tramadol
Phenacetin	Metamizole	Butyryl Fentanyl	Levamisole	Levamisole
Lidocaine	Heroin	Levamisole	Metamizole	Metamizole
Quinine	Acetaminophen	Metamizole	Xylazine	Xylazine
Caffeine	Phenacetin	Tramadol	Phenacetin	Ketamine
	Procaine	Xylazine	Quinine	Quetiapine
	Caffeine	Aminopyrine	Diphenhydramine	Acetaminophen
	Codeine	Lidocaine	Ephedrine	Amionpyrine
	Morphine	Quinine	Lidocaine, Procaine	Trazodone
	Acetylcodeine	Morphine, Caffeine, Ephedrine	Codeine, Morphine	Codeine, Morphine
	6-MAM	6-MAM, Acetylcodeine	6-MAM, Codeine, Acetylcodeine	6-MAM, Acetylcodeine

Legend:

Black = drugs, adulterants, and impurities

Yellow = may require more naloxone

Underline/Italics = primary constituent

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Isotonitazene Positive Case Results

Sample 3 Grand Rapids, MI	Sample 4 Grand Rapids, MI
Isotonitazene, **Fentanyl**, **Heroin** (Morphine, Noscapine) **Tramadol, Methamphetamine, Amphetamine**, **Xylazine**, Lidocaine, Phenacetin, Chlorpheniramine, **N-propionyl Norfentanyl**, Quinine, **Naloxone**	**Isotonitazene**, **para-Fluorofentanyl**, **Fentanyl**, **Heroin** (Morphine, Codeine, Noscapine), **Cocaine**, Benzoylecgonine, **Methamphetamine, Amphetamine**, Diazepam, Alprazolam, 7-Amino Clonazepam, Nordiazepam, Oxazepam, Temazepam, **Xylazine, Levamisole**, Lidocaine, Monoethylglycinexylidide, Phenacetin, Diphenhydramine, **Norfentanyl**, O-Desmethyltramadol, **4-ANPP**, **N-propionyl Norfentanyl**, Quinine, **N-Desethyl Isotonitazene**, **Phenethyl-4-ANPP**, **Naloxone**

cfsre NPS DISCOVERY

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Overdose Prevention

Fentanyl Test Strips

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Fentanyl Test Strips

- A useful tool to address overdose potential
- Information allows users to adjust their dose and pace themselves
- Limitations due to composition of today's street drugs

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Compassion for the Clinician: A Workshop for Reflection

—Gita Mehta, MD & Thomas Dooley, MFA,
Institute for Empathy and Compassion, UCSD

Compassion for the Clinician

A Workshop for the Body, Mind, and Spirit

Thomas Dooley, MFA

UC San Diego
SANFORD INSTITUTE FOR EMPATHY AND COMPASSION

CENTER FOR COMPASSIONATE COMMUNICATION

Scan the QR Code below and respond to the prompt, “I fear…”

BODY

These Hands

Suzanne Quinn, RN

These hands are humble
They are not much to look at
They are dry, wrinkled and scarred
They tell the story of life and death
These hands belong to a nurse
These hands have relieved pain
They have administered medication
They have repositioned and massaged
They have hoisted and pulled
These hands do the heavy lifting
These hands have cleaned
They have been washed a million times
They have bathed thousands of people
They have healed wounds
These hands have cleansed the soul
These hands have rescued
They have given chest compressions
They have juggled lifesaving drips
They have held bleeding arteries
These hands have brought back life
These hands have consoled
They have guided and directed families
They have brought peace in final hours
They have relieved suffering
These hands have allowed death
These hands are mine.....

The Body

Prompt 1

Take a moment to look at your own hands. Reflect on what your hands have had to do. Write several lines about what your hands have had to do, what they look like, what they have "seen," etc., beginning with the phrase "These hands…"

MIND

The Guest House

Rumi

This being human is a guest house.
Every morning a new arrival.

A joy, a depression, a meanness,
some momentary awareness comes
as an unexpected visitor.

Welcome and entertain them all!
Even if they're a crowd of sorrows,
who violently sweep your house
empty of its furniture,
still, treat each guest honorably.
He may be clearing you out
for some new delight.

The dark thought, the shame, the malice,
meet them at the door laughing,
and invite them in.

Be grateful for whoever comes,
because each has been sent
as a guide from beyond.

The Mind

Prompt 2

What thoughts and/or feelings have visited you recently? Take a moment to reflect on and write about those thoughts and/or feelings.

SPIRIT

Hospital Writing Workshop

Rafael Campo, MD

Arriving late, my clinic having run
past 6 again, I realize I don't
have cancer, don't have HIV, like them,
these students who are patients, who I lead
in writing exercises, reading poems.
For them, this isn't academic, it's
reality: I ask that they describe
an object right in front of them, to make
it come alive, and one writes about death,
her death, as if by just imagining
the softness of its skin, its panting rush
into her lap, that she might tame it; one
observes instead the love he lost, he's there,
beside him in his gown and wheelchair,
together finally again. I take
a good, long breath; we're quiet as newborns.
The little conference room grows warm, and right
before my eyes, I see that what I thought
unspeakable was more than this, was hope.

The Spirit

Prompt 3

What looks like hope to you right now? Write about what gives you hope.

UCSD Price Center Restaurants

University Centers Dining

University Centers brings the campus community a mix of quick-casual eateries to satisfy a variety of food cravings! Find locally-owned restaurants serving family recipes and well-know national chains everyone loves.

Most Eateries Accept GRUBHUB!

Please be patient as some vendors are short staffed and hours are subject to change. We appreciate your understanding during this time.

Burger King

Mon-Fri: 7am - 12am • **Sat:** 9am-11am • **Sun:** 9:30am - 11pm

Burgers, fries, and more —all freshly prepared— just the way you want it! After all, when you have it your way it just tastes better.

Curry Up Now

Mon-Fri: 11am - 9pm • **Sat & Sun:** 11am - 8pm

Indian street food with a twist. Enjoy Tikka Masala burritos; Holy Moly Fried Ravioli, Itsy Bitsy Naan Bites, Samosas, rice dishes, bowls, and more. Offering vegan, vegetarian, keto, paleo, and halal dishes.

Dirty Birds

Mon-Fri: 10am - 10pm • **Sat & Sun:** 12pm - 7pm

Proudly serving some of the best wings in San Diego!

Jamba

Mon-Fri: 9am - 7pm • **Sat & Sun:** Closed

Smoothies, energy bowls, all-natural baked goods, steel-cut oatmeal, and other healthy choices.

Lemongrass Farm Fresh Plates

Mon-Thurs: 9am - 8pm • **Fri:** 9am - 4pm • **Sat:** 10:30am - 3pm • **Sun:** 10:30am - 4pm

Thai fusion comfort dishes made with fresh, healthy flavors of seasonal fruits and vegetables.

Panda Express

Mon-Fri: 10am - 5pm • **Sat:** 10am - 2pm • **Sun:** Closed

From traditional Chinese favorites to fresh new taste creations, Panda Express has something for everyone.

Rubio's Coastal Grill

Mon-Thurs: 10:30am - 7pm • **Fri:** 10:30 - 4pm • **Sat & Sun:** Closed

Famous for fish tacos, Rubios also offers made-to- order burritos, tacos, quesadillas, salads, and more.

Santorini Greek Island Grill

Mon-Thur: 7am - 10pm • **Fri:** 7am - 9pm

Sat& Sun: 11am - 9pm

Fresh-made Mediterranean dishes, including falafel, gyros, salads and more.

Seed + Sprout

Mon-Fri: 8:30am - 3:30pm • **Sat & Sun:** Closed

Eat a complete meal in one bowl! Get all the macro-nutrients you need in a convenient and delicious bowl.

Starbucks

Mon-Thurs: 7am - 9pm • **Fri:** 7am - 8pm

Sat: 8am - 7pm • **Sun:** 9:30am - 7pm

Enjoy your favorite coffee and tea drinks at your student union! Art gallery featuring student work.

Subway

Mon - Thurs 7am - 7pm • **Fri:** 7am - 6pm **Sat & Sun:** 11am - 4pm

Currently a limited sandwich and salad menu.

Sunshine Market

Mon-Thurs: 7am - 9pm • Fri: 7am - 6pm

Sat & Sun: 11am - 5pm

A full-service grocery store with fresh grab and go lunch options, sundries, snacks and more.

Tapioca Express

Mon-Fri: 9:30am - 11pm • **Sat & Sun:** 10:30am - 11pm

Your place for tea and Boba drinks! Plus, enjoy a full menu of Asian inspired food.

Zanzibar Café at The Loft

Mon-Fri: 10:30am - 5pm • **Sat & Sun:** Closed

Enjoy a unique dining experience at Zanzibar located inside The Loft on level 2 of Price Center East. Meet friends for breakfast, lunch, or happy hour.

Mission Statement

Devoted to workforce competence in addiction and mental health services by bringing research to practice — our clients deserve the best!

www.ccarta.com

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Continuing Education Units

APA
The UCSD Department of Psychiatry is approved by the American Psychological Association Sponsor Approval System to provide continuing education for psychologists. This course has been approved for **13** continuing education hours. The UCSD Department of Psychiatry maintains sole responsibility for this course. You will need to provide your license number.

CAADE
This course can account for **13** continuing education units (CEUs) for California Association of Alcoholism and Drug Educators (CAADE). You will need to provide your certificate number.

CCAPP
This course can account for **13** continuing education units (CEUs) for California Consortium of Addiction Programs and Professionals (CCAPP). You will need to provide your certificate number.

Please complete the viewing and registration requirements to be issued your professional certificate.