

Interprofessional Education Day

Today's Healthcare Challenges:
An interprofessional approach to suicide,
behavioral health and the opioid crisis



LOMA LINDA UNIVERSITY

Thursday, February 28, 2019

Presenters:

Adam Aréchiga, PsyD, DrPH, MA
Brenda Boyle, DNP
Beverly Buckles, DSW
Ronald Carter, PhD
Jose Cesar, MD
Carla Gober-Park, PhD, MS, MPH, RN
Richard Hart, MD, DrPH
Justin Hata, MD
Alan Herford, DDS, MD
Michael Hogue, PharmD

Gloria Huerta, DNP
Wonha Kim, MD, MPH
Jessa Koch, PharmD
Ehren Ngo, MS
Erin Richards, DDS
Katia Stoletniy, MD
Darcy Trenkle, MD
Jennifer Weniger, PhD
Ricardo Whyte, MD
Gerald Winslow, PhD

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Password: Homecoming19!

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Loma Linda, California 92350
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LOMA LINDA UNIVERSITY
HEALTH

Syllabus Required Information

Course Description: Suicide, behavioral health and the opioid crisis are hot topics in today's tumultuous society. It affects everyone in all professions. So, how do we handle patient conditions that are within our professional specialty? How do we handle patient conditions outside of our professional specialty? How do we communicate with other professionals to seek guidance and intervention for our patient that may be suffering on the inside? How do you go about providing support and direction for a patient? How do you recognize the often subtle changes in your patient that may be on a pathway of addiction or suicide?

This highly interactive, interprofessional conference is sure to engage you. Discussion will first focus on four quadrants: physical, mental/emotional, social and spiritual as they relate to whole person care. Focal presentations will include behavioral health, suicide, and opioid use in the general population, as well as among healthcare providers. Tools for advancing the science of whole person care, improving communication between disciplines, recognizing behavioral health challenges and improving overall patient care will be discussed. Attendees will have the opportunity to interact with the individual speakers and a panel of experts through Poll Everywhere.

If you find audience participation and direct dialogue with content experts appealing, please join us. Are you ready for a robust conference, unlike any other you've attended? If you answered "yes," then this conference is for you!

Course Purpose and/or Objectives:

At the end of this conference the attendee should be able to:

1. Discuss several ways to provide a more accurate assessment.
2. Define the four individual quadrants and the importance of how each integrate into the Whole Person.
3. List ways to better connect with individuals that do not define themselves as "spiritual."
4. Determine ways to reach out and discuss the sensitive topic of mental health.
5. Discover new ways to discuss ones emotional/relational issues or challenges.
6. Identify the process and challenges in guiding one towards assistance for substance abuse.
7. Recognize the sometimes subtle changes in personality or physicality of an individual and how you can assist them during demanding times.
8. Describe the various prevention programs available to the depressed or suicidal person and how to go about supporting them through the process.
9. Indicate ways to find and keep your balance while assisting a loved one, co-worker, or friend, through the processes of Whole Person Care.

Course Content/Outline:

See Schedule

Course Completion Requirements:

Successful completion is defined as:

1. Attendance at each presentation and participant may not miss more than ten minutes of any presentation.
2. Provision of enrollment/CE information.
3. Complete program/speaker evaluation forms and return at the conclusion of the course.
4. Complete and return posttest at the conclusion of the course if applicable.

Continuing Education Credits:

Upon successful completion, the participant will be awarded 7.5 contact hours of continuing education credit (with the exception of ASRT credit. See below)

- Loma Linda University Medical Center Office of Staff Development is approved by the American Psychological Association to sponsor continuing education for psychologists. LLUMC Office of Staff Development maintains responsibility for this program and its contents. This event meets the qualifications for 7.5 hours of continuing education credit for psychologists as required by the American Psychological Association
- Provider approved by the California Board of Registered Nursing, Provider Number 00239, for 7.5 contact hours
- Loma Linda University Medical Center, Staff Development provider #180 is accredited by the California Accreditation of Pharmacy Education (CAPE) as a recognized provider of continuing pharmacy education. Pharmacists completing this course prior 02/28/2022 may receive 7.5 credits
- Loma Linda University Medical Center, Staff Development is a Continuing Professional Education Accredited Provider with the Commission on Dietetic Registration. Registered dietitians and dietetic technicians, registered will receive 7.5 continuing professional education units for completion of this program.
- Loma Linda University Medical Center, Staff Development is recognized as a Continuing Competency Approving Agency by the Physical Therapy Board of California. This program is approved for 7.5 CE credits.
- This course meets the qualifications for 7.5 hours of continuing professional development credit for Speech-Language Pathologists as required by the California Speech-Language Pathology and Audiology Board, provider #PDP42.
- This course has been approved for 6.5 Category A continuing education credit by the ASRT.
- Loma Linda University School of Public Health is a designated provider of Category I continuing education contract hours for health education by the National Commission for Health Education Credentialing, Inc. The NCHCEC Multiple Event Provider (MEP) number is 105816. This event will be available for 7.5 (CHES and MCHES) credit hours.
- Respiratory Care Practitioners reciprocate with BRN provider number 00239 for contact hours.
- Occupational Therapist reciprocate with PDP#42
- Behavioral Health Professionals reciprocate with APA credit hours.
- The Loma Linda University School of Public Health is a pre-approved provider of CPH re-certification credits by the National Board of Public Health Examiners. This event will earn 7.5 re-certification credits.

Continuing Education / Proof of Completion Certificates

Upon completion of the course, participants may print continuing education / proof of completion certificates via the **LLUH CE Portal**. This will be the only source for acquiring your certificate. Please allow up to 3 weeks after the last day of the course for the CE certificates to be available.

Go to <https://ce.llu.edu>

Select: **Sign in**

Enter the email address and password you used to register for the course/event.

If you have a @LLU.edu email address please sign in with this email

(If you've forgotten your password select **Forgot Password**, enter your email address, and you will be able to update your password.)

Select **Credits**

Select **View** next to the course name of the course you want to print the certificate for

When you are done, **Sign off**

Conflict of Interest or lack thereof:

The planning committee, coordinator and presenters of this class have no financial relationship in the material presented.

Commercial Support

There is no commercial support related to this educational class.

Non-endorsement of product(s):

Please be advised that accredited status does not imply endorsement of any commercial products displayed in conjunction with this class by either the Loma Linda University Medical Center or ANCC.

Planning Committee:

Name and Educational Credentials	Position	Agency	Committee Role	Expertise
Gwen Wysocki DNP, RN-BC	Executive Director, Staff Development	LLUMC	Lead Nurse Planner	ANCC, BRN, Leadership
Renee Lundin, M.A.M., R.T.(R)(M), ARRT, CRT, CMCBE	Educator, Staff Development	LLUMC	Clinical Educator	CEU for Nursing and Non-Nursing
Erin Richards, DDS	Acting Director, Center for Interprofessional Education	LLU	Planner, overall course facilitator	Interprofessional Education, Dental Diagnostics
Ronald Carter, PhD	Executive Vice President, University Provost, Chief Academic Officer	LLUH	Planner	University Academia and Assessment

Nikki Nicolas, MBA	Executive Assistant to Ron Carter, PhD	LLU	Planner	University Academia and Assessment
Ashley Vasquez, BA	Program Coordinator	LLU	Planner	Interprofessional Education

Course Coordinator:

Ronald Carter, PhD

Provost, Loma Linda University

Executive Vice President, University Affairs

Loma Linda University

Interprofessional Education Day

Today's Healthcare Challenges:

An interprofessional approach to suicide, behavioral health and the opioid crisis

Thursday, February 28, 2019

Loma Linda University

Course description

Suicide, behavioral health and the opioid crisis are hot topics in today's tumultuous society. It affects everyone in all professions. So, how do we handle patient conditions that are within our professional specialty? How do we handle patient conditions outside of our professional specialty? How do we communicate with other professionals to seek guidance and intervention for our patient that may be suffering on the inside? How do you go about providing support and direction for a patient? How do you recognize the often subtle changes in your patient that may be on a pathway of addiction or suicide?

This highly interactive, interprofessional conference is sure to engage you. Discussion will first focus on four quadrants: physical, mental/emotional, social and spiritual as they relate to whole person care. Focal presentations will include behavioral health, suicide, and opioid use in the general population, as well as among healthcare providers. Tools for advancing the science of whole person care, improving communication between disciplines, recognizing behavioral health challenges and improving overall patient care will be discussed. Attendees will have the opportunity to interact with the individual speakers and a panel of experts through Poll Everywhere.

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Overall course objectives

1. Identify tools for advancing the practice and science of whole person care.
2. Develop skills to improve interprofessional communication, teamwork, perspective and bioethics.
3. Illustrate how to integrate the bio-psycho-social-spiritual approach into patient/client care.
4. Determine methods in which to integrate the bio-psycho-social-spiritual approach into the interprofessional arena.

7:30am – 8:00am Registration

8:00am – 8:15am Welcome, Introductions and Overview
Richard Hart, MD, DrPH; Erin Richards, DDS

8:15am – 10:00am Wholeness within Context: Suicide, opioids and whole person care

Carla Gober-Park, PhD, MS, MPH, RN

Objectives

1. Describe whole person care from a multi-faceted and integrative perspective.
2. Discuss three case studies that exemplify whole person care in practice.
3. Discuss links between whole person care, suicide and the opioid crisis.

Additional objectives were not available at the time of printing.

10:00am – 10:15am Break

10:15am – 10:50am Social and Behavioral Isolation

Adam Aréchiga, PsyD, DrPH, MA

Objective

1. Explore the innovations and cutting-edge information in the field of behavioral health and how they relate to suicide and the opioid crisis.

Additional objectives were not available at the time of printing.

10:50am – 11:25am Neurobiology of Suicide and Addictions

Katia Stoletniy, MD

Objective

1. Explore the innovations and cutting-edge information in the field of neuroscience and how it relates to suicide and the opioid crisis.

Additional objectives were not available at the time of printing.

11:25am – 12:00pm Ethics and Faith for a Whole Life

Gerald Winslow, PhD

The discussion will explore how a life of integrity contributes to human wholeness, and how the faith community can support such a life. Practical applications will then be suggested for the nation's current opioid crisis and the tragic loss of life that has become epidemic in our society.

Objectives

1. Describe how convictions of faith can foster the wholeness of personal integrity.
2. Explain how communities of faith are making practical use of their spiritual resources to address the opioid crisis in our society.

12:00pm – 1:00pm Lunch break

1:00pm – 2:50pm

Interdisciplinary Panel Discussion – Suicide

Focal presentation on suicide in the general population, among healthcare providers, audience participation through Poll Everywhere, interprofessional application and next steps.

Beverly Buckles, DSW - Moderator

Erin Richards, DDS - Facilitator

Ehren Ngo, MS - Contributor

Jennifer Weniger, PhD - Introduction speaker

Panelists

1. *Adam Aréchiga, PsyD, DrPH, MA*
2. *Gloria Huerta, DNP*
3. *Jessa Koch, PharmD*
4. *Darcy Trenkle, MD*
5. *Jennifer Weniger, PhD*

Objectives

1. Examine tools for advancing the practice and science of suicide prevention and intervention.
2. Employ interprofessional methods by which the Whole Person Care approach can be integrated into suicide prevention and intervention.

2:50pm – 3:05pm

Break

3:05pm – 4:55pm

Interdisciplinary Panel Discussion – Opioid crisis

Focal presentation on the opioid crisis in the general population, among healthcare providers, audience participation through Poll Everywhere, interprofessional application and next steps.

Michael Hogue, PharmD - Moderator

Erin Richards, DDS - Facilitator

Ehren Ngo, MS - Contributor

Justin Hata, MD - Introduction speaker

Panelists

1. *Brenda Boyle, DNP*
2. *Jose Cesar, MD*
3. *Alan Herford, DDS, MD*
4. *Wonha Kim, MD, MPH*
5. *Jessa Koch, PharmD*
6. *Ricardo Whyte, MD*

Objectives

1. Examine tools for advancing the practice and science of opioid misuse through prevention and intervention.
2. Employ interprofessional methods in which to integrate the Whole Person Care approach to prevention and intervention of opioid misuse.

4:55pm – 5:00pm

Closing Remarks

Erin Richards, DDS; Ronald Carter, PhD

Interprofessional Education Day Presenters



Adam Aréchiga, PsyD, DrPH, MA

Dr. Aréchiga currently serves as the Associate Dean for Academic and Student Affairs in the School of Behavioral Health at LLU. He is a member of LLU's Behavioral Health Trauma Team and travels around the world teaching CRM to communities that have been impacted by natural or man-made disaster. Dr. Aréchiga is a licensed psychologist and Preventive Care Specialist who maintains a small private practice at the BHI. He is a published researcher and is currently working on multiple CRM research projects.



Brenda Boyle, DNP, RN, PMHNP-BC

Dr. Brenda Boyle currently serves as the coordinator of the Psychiatric Nurse Practitioner clinical courses with the School of Nursing. Born and raised in Canada, Dr. Boyle has enjoyed a diverse career in cardiac care, HIV nursing, home health, hospice and dialysis. Energized by the psych-social-spiritual aspects of patient care, over a decade ago she re-directed her career to psychiatric nursing. In 2013, Dr. Boyle obtained her certification as a Psychiatric Nurse Practitioner from Arizona State University and her Doctorate of Nursing Practice in 2017 from the University of San Diego. Dr. Boyle maintains a clinical practice at SAC Healthcare in San Bernardino focusing on Integrated Behavioral Healthcare and Addictions.



Beverly Buckles, DSW

Beverly J. Buckles, MSW, DSW, is Dean of the School of Behavioral Health at Loma Linda University (LLU). Dr. Buckles is well known as an expert in mental health policies and services, and international behavioral health trauma response. She has received recognition regionally and nationally for promoting partnerships between academia and public mental health, and for her work in the implementation of psychological first aid and trauma resiliency methodologies in under developed regions of the world to affectively assist governments, health systems and NGOs to prepare for and respond to natural and man-made disasters.



Ronald Carter, PhD

Dr. Ronald Carter is the Executive Vice President of LLUH, Loma Linda University's corporate organization. He is also the University Provost and Chief Academic Officer.

Provost Carter's field of training is as a populations and conservation geneticist. His post-doctoral work is in Molecular Systematics. He is a published editor and author of scientific books and papers on conservation and the genetics of speciation.

Dr. Carter is an ordained SDA minister. He has served as youth pastor at the Arlington SDA Church, and college chaplain and religion teacher at Walla Walla University. At LLU, he has served as a researcher, mentor of graduate students, department chair, a Dean, a Vice Chancellor and now as Provost.

His research has included studies in the Galapagos, the Amazon, the Bahamas, the Puget Sound of western Washington, China, and Indonesia. His DNA studies have included population of sea birds, fish, shrimp, lizards, turtles, and sunflowers.

In 2010, Dr. Carter led Loma Linda University into regional re-accreditation with such success that he was invited to serve two terms (6 years) as a WSCUC (WASC) Commissioner.



Jose Cesar, MD

Jose Cesar, pain management and anesthesiology assistant professor. Loma Linda SOM graduate with training in anesthesiology and additional fellowship in pain management. Expertise in multidisciplinary pain management and multidimensional perioperative care of patients of all ages.



Carla Gober-Park, PhD, MS, MPH, RN

Carla Gober-Park, PhD, MPH, MS, RN is the Assistant Vice President for Spiritual Life and Mission, Director of the Center for Spiritual Life and Wholeness, and Associate Professor of religious studies at Loma Linda University. She has degrees in various fields: nursing, religious studies, marriage and family counseling, and public health education. She is also a storyteller, poet, filmmaker and chef. In 2015 she was both lead producer and executive producer of the award-winning film, A Certain Kind of Light, a short-form documentary film on whole person care told through the life of Wil Alexander.

She speaks throughout the world on topics related to health, wholeness, narrative, and whole person care. She developed the first Seventh-day Adventist DVD Women's Bible study series, entitled Journey of Joy: Healthy Emotions, Holy Hearts. Most recently Carla led in the development of the CLEAR Whole Person Care Model that has been adopted by Loma Linda University Health as the foundation for all education and clinical practice of whole person care.



Richard Hart, MD, DrPH

Dr. Richard Hart currently serves as President of Loma Linda University Health – the umbrella corporation that includes the enterprise’s academic, healthcare, and research organizations. He earned his Doctor of Medicine degree from LLU School of Medicine in 1970, followed by a Doctor of Public Health in International Health at Johns Hopkins University in 1977, also becoming Board certified in Preventive Medicine.

Dr. Hart has served Loma Linda University since 1972 in a variety of ways that include Chair of the School of Public Health’s Department of Health Sciences, Director of the Center for Health Promotion, Chair of the School of Medicine’s Department of Preventive Medicine, Dean of the School of Public Health, and President (previously Chancellor) and CEO of the University.

Dr. Hart’s vision extends beyond the walls of Loma Linda University not only to the local communities, but also to the villages and towns, the hospitals and mission clinics, in the farthest reaches of our globe. He has served as Chief of Party for a USAID project in Tanzania where he developed a national maternal and child health program that is still a model for Africa today. His passion for humanitarian service has led to the development of a variety of programs at Loma Linda University including, Students for International Mission Service (SIMS) and Social Action Community Health System (SACHS)—a local low-cost clinic for the medically underserved; and more recently, to the establishment of the San Manuel Gateway College, part of LLU’s San Bernardino Campus.

Dr. Hart also serves as president of Adventist Health International (AHI), a management corporation established to restore Adventist mission hospitals worldwide.



Justin Hata, MD

Dr. Hata is Chair of the Department of Physical Medicine and Rehabilitation at Loma Linda University Medical Center. He also serves as the Medical Director for the Department of Rehabilitation Services and the Center for Pain Management at Loma Linda University Medical Center. Dr. Hata is also the Program Director for the Pain Medicine Fellowship program at Loma Linda University Medical Center.



Alan Herford, DDS, MD

Dr. Herford is Professor and Chair of the Department of Oral and Maxillofacial Surgery at Loma Linda University. He received his DDS degree from LLU School of Dentistry and trained in Oral and Maxillofacial Surgery at Parkland Hospital in Dallas, Texas. He earned his MD from the University of Texas at Dallas Southwestern Medical School. He is a Fellow of the American Association of Oral and Maxillofacial Surgeons. Dr. Herford serves on numerous committees and is currently President of the American Board of Oral and Maxillofacial Surgery Board of Directors.



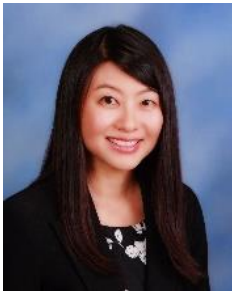
Michael Hogue, PharmD, FAPhA, FNAP

Dr. Michael Hogue currently serves as Dean of Loma Linda University School of Pharmacy. He holds a doctorate of pharmacy from Samford University College of Health Sciences. Dr. Hogue has served in various roles at the McWhorter School of Pharmacy at Samford University College of Health Sciences in Birmingham, Alabama, including interim dean, professor and pharmacy practice department chair. He is active in the American Association of Colleges of Pharmacy and has been appointed to serve as president of the American Pharmacists Association from 2020 to 2021. He is widely published and has presented at numerous conferences. He has served on several boards, including the National Foundation for Infectious Diseases, the Editorial Advisory Board for the Journal of the American Pharmacists Association, Pfizer's Hospital Pharmacist Advisory Board for Pneumococcal Vaccine, and the Board of Directors for the East Central Alabama Area Health Education Center. Earlier this year, Dr. Hogue was inducted into the Alabama Healthcare Hall of Fame.



Gloria Huerta, DNP, FNP-C, NHDP-BC, CNS, RN

Gloria Huerta is passionate about education and patient care, and she is able to combine these two roles as the Coordinator of the Nurse Practitioner Program for Loma Linda University School of Nursing and as a nurse practitioner for Raincross Medical Group in Riverside, CA. Both of these roles permit her to give back to the community as she works to improve the quality and enhance the access to care for many vulnerable populations, including the disaster victims that she serves when deployed on California-2, a federal Disaster Medical Assistance Team.



Wonha Kim, MD, MPH, CPH, FAAP

Dr. Wonha Kim completed her undergraduate training at Princeton University, where she majored in policy at the Woodrow Wilson School of Public and International Affairs and minored in Spanish Language and Literature. She received her medical degree from Johns Hopkins and stayed on at Hopkins for her pediatric residency. She also completed further training in general preventive medicine and public health at Johns Hopkins Bloomberg School of Public Health, obtaining her Masters in Public Health (MPH) degree during the process. She is board certified in both Pediatrics and Public Health/General Preventive Medicine. She currently serves at Loma Linda University Health as Assistant Professor of Pediatrics and of Preventive Medicine, Assistant Professor for the School of Public Health, and Director of the Institute for Health Policy and Leadership.



Jessa Koch, PharmD, BCPP

Dr. Jessa Koch is a Board Certified Psychiatric Pharmacist and joined Loma Linda University School of Pharmacy as a faculty member in July 2016. Dr. Koch is the course coordinator and lecturer for the psychiatry and neurology courses at the school of pharmacy. Dr. Koch is the psychiatric pharmacist on the Integrated Care team at the Social Action Community Health System (SACHS) clinic in San Bernardino, California. In this multidisciplinary setting, she helps manage behavioral health conditions. Her other practice sites include LLUH Internal Medicine Department and Movement Disorders Clinic where she collaborates with other providers to optimize medication management for a number of psychiatric and neurological conditions.



Ehren Ngo, MS, EMT-P

Ehren is the emergency operations manager for Loma Linda University Health. Prior to taking this position in July 2016, Ehren was program director of the Bachelor of Science in emergency medical care. He holds appointments as assistant professor in both the School of Public Health and School of Allied Health Professions at Loma Linda University. Ehren began his career at LLU in 1999 after earning his Master of Science degree in emergency health services, with an emphasis in epidemiology and preventive medicine from the University of Maryland, Baltimore County. He previously completed a bachelor of science in emergency medical care from LLU and paramedic certification from The George Washington University. Ehren is an experienced educator who enjoys facilitating transformative educational experiences in the traditional classroom as well as online/distance learning settings. His areas of interest include prehospital systems and delivery of emergency medical care, disaster health issues (especially among the elderly), and injury prevention.



Erin Richards, DDS

Erin Richards is the Acting Director of the Center for Interprofessional Education for Loma Linda University. She is also an Assistant Professor for the School of Dentistry where she serves as the IPE coordinator and the Director for the Interprofessional Offsite Clinical Rotations. She has also been given a secondary appointment at the School of Pharmacy as Assistant Professor. Along with her position as the University Faculty Council Chair, she works closely with the Provost, Ron Carter, in many matters, her most favorite being Interprofessional Education and Collaboration.



Katia Stoletniy, MD

Dr. Stoletniy, MD is a practicing Psychiatrist in Loma Linda, CA. She completed her residency training at Loma Linda University Medical Center. She currently practices at Loma Linda Behavioral Medicine Center and is affiliated with Loma Linda University Medical Center. Currently acting as Medical Director for the Substance Use Recovery and Wellness Program.



Darcy Trenkle, MD

Dr. Darcy Trenkle completed her medical school and residency training at Loma Linda University. She completed ECT certification at Duke University. Dr. Trenkle is the Medical Director of Electroconvulsive Therapy. Additionally she is the Medical Director of the Department of Psychiatry's Physician Healing Team dedicated to Loma Linda's mission to Make Man Whole starting with the healer.



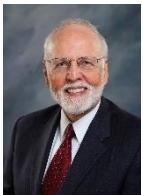
Jennifer Weniger, PhD

Dr. Weniger is a licensed psychologist and licensed marriage and family therapist. Dr. Weniger received her bachelor's degree in psychology from California Polytechnic University, Pomona in '95, her master's degree in marriage and family therapy from the Adler School of Professional Psychology in Chicago, IL '97, a Ph.D. in clinical psychology from California Southern University '03, and a Ph.D. in general psychology with an emphasis in advanced marriage and family therapy from Northcentral University in '17. She completed postgraduate coursework at California State University Fullerton and UC San Diego. She has over twenty years of experience working in the mental health field. She has been an administrator at a residential treatment center for abused children, owned her own group private practice for five years, and she is an approved clinical supervisor for the American Association of Marriage and Family Therapists. She has publications in the field of marriage and family therapy and psychology. Dr. Weniger teaches courses in psychopathology, cognitive behavioral therapy and postmodern theory for the School of Behavioral Health at Loma Linda University, and she is a primary supervisor for the Department of Psychiatry. She works full-time as the Coordinator of Clinical Training at Loma Linda University Behavioral Medicine Center. Dr. Weniger is a clinical member with the American Psychological Association and the American Association of Marriage and Family Therapists. Her passions are researching, teaching and training in the mental health field, and she specializes in suicide prevention, pediatrics, and eating disorders.



Ricardo Whyte, MD

Dr. Ricardo J. Whyte earned his Medical Doctorate from the University of Connecticut School of Medicine. Dr. Whyte completed his Psychiatry Residency at Loma Linda University School of Medicine. Dr. Whyte went on to complete an Addiction Psychiatry Fellowship at the University of California, Los Angeles. Dr. Whyte is now on faculty at Loma Linda University as an Assistant Professor and he is the Medical Director of Psychiatric Services at Community Hospital of San Bernardino. He obtained Double Board Certification in Adolescent and Adult Psychiatry as well as Addiction Psychiatry.



Gerald Winslow, PhD

Gerald Winslow is the Director of Loma Linda University's Center for Christian Bioethics. He is also Professor of Religion in LLU's School of Religion and the Founding Director of LLU's Institute for Health Policy and Leadership.

For over a decade he also served as a vice president in LLU's health system. He is currently the chair of Stakeholder Health's Advisory Council. He received his undergraduate education at Walla Walla University and his M.A. degree at Andrews University. He earned his Ph.D. from the Graduate Theological Union in Berkeley. He has been a visiting scholar at Cambridge University, University of Virginia, and the University of Tübingen. For over fifty years, he has specialized in teaching and writing ethics in health care. His current work focuses on the intersection of social ethics and health policy. Professor Winslow is married to Dr. Betty Wehtje Winslow. The Winslow's have two daughters, Lisa who is a computer software engineer and Angela who is an occupational therapist.

Wholeness within Context

Suicide, Opioids and Whole Person Care

Carla Gober-Park, PhD, MS, MPH, RN
Assistant VP for Spiritual Life and Mission Director
Center for Spiritual Life and Wholeness
Loma Linda University

Wholeness Within Context

Suicide, Opioids and Whole Person Care

Carla Gober-Park, PhD, MS, MPH, RN – Assistant VP for Spiritual Life and Mission
 Director, Center for Spiritual Life and Wholeness



Learning Objectives

- » Define "Opioid Epidemic" within the context of Whole Person Care
- » Identify the rise in suicide over the past 15 years
- » Define "deaths of despair"
- » Understand the possible connections between poisoning and suicide rates in relation to "deaths of despair"
- » Understand the challenges of reaching those at risk for "despair"
- » Identify ways whole person care can address those challenges
- » Identify activities at LLUH that are addressing the challenges
- » Understand ways of living with hope within circumstances that potentially cause despair

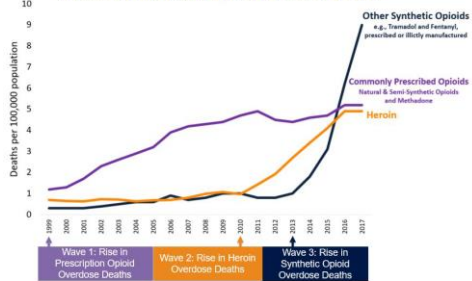
How it touches me...

- » "I need the air conditioner on higher!" (suicide)
- » "You can't keep me from killing myself" (suicide)
- » "I had no idea..." (drugs)

The Opioid Epidemic (CDC)

- » From 1999 to 2017, more than 700,000 people have died from a drug overdose
- » Around 68% of the more than 70,200 drug overdose deaths in 2017 involved an opioid
- » In 2017, the number of overdose deaths involving opioids (including prescription opioids and illegal opioids like heroin and illicitly manufactured fentanyl) was 6 times higher than in 1999
- » On average, 130 Americans die every day from an opioid overdose

3 Waves of the Rise in Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File

10 Leading Causes of Death, United States 2016, All Races, Both Sexes

Ranking	Age groups									
	10-14	15-24	25-34	35-44	45-54	55-64	65+	10-14	15-24	25-34
1	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease
2	Stroke	Stroke	Stroke	Stroke	Stroke	Stroke	Stroke	Stroke	Stroke	Stroke
3	Accidents (unintentional)	Accidents (unintentional)	Accidents (unintentional)	Accidents (unintentional)	Accidents (unintentional)	Accidents (unintentional)	Accidents (unintentional)	Accidents (unintentional)	Accidents (unintentional)	Accidents (unintentional)
4	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease
5	Diabetes	Diabetes	Diabetes	Diabetes	Diabetes	Diabetes	Diabetes	Diabetes	Diabetes	Diabetes
6	Alzheimer's Disease	Alzheimer's Disease	Alzheimer's Disease	Alzheimer's Disease	Alzheimer's Disease	Alzheimer's Disease	Alzheimer's Disease	Alzheimer's Disease	Alzheimer's Disease	Alzheimer's Disease
7	Chronic Liver Disease	Chronic Liver Disease	Chronic Liver Disease	Chronic Liver Disease	Chronic Liver Disease	Chronic Liver Disease	Chronic Liver Disease	Chronic Liver Disease	Chronic Liver Disease	Chronic Liver Disease
8	Chronic Kidney Disease	Chronic Kidney Disease	Chronic Kidney Disease	Chronic Kidney Disease	Chronic Kidney Disease	Chronic Kidney Disease	Chronic Kidney Disease	Chronic Kidney Disease	Chronic Kidney Disease	Chronic Kidney Disease
9	Influenza & Pneumonia	Influenza & Pneumonia	Influenza & Pneumonia	Influenza & Pneumonia	Influenza & Pneumonia	Influenza & Pneumonia	Influenza & Pneumonia	Influenza & Pneumonia	Influenza & Pneumonia	Influenza & Pneumonia
10	Septicemia	Septicemia	Septicemia	Septicemia	Septicemia	Septicemia	Septicemia	Septicemia	Septicemia	Septicemia

Source: NCHS Data on Leading Causes of Death, 1999-2016

“Deaths of Despair”

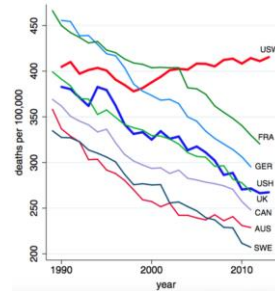


- » Meet Angus Deaton (Princeton Economics Professor and Nobel Prize Winner) and Anne Case (Professor of Economics and Public Affairs)
- » Groundbreaking study in 2015 <https://www.pnas.org/content/112/49/15078>
 - Middle-aged non-Hispanic whites in the US with a high-school diploma or less have experienced increasing midlife mortality since the late 1990s.
 - “The bad side is that, even get down to 10 per cent of the world being poor, meaning living in something pretty close to destitution, imagine trying to live in the United States – and taking housing and health care out of this – on \$1.90 a day, and I think that would give you some idea of the level of living for many people around the world.” (Deaton) <https://www.brookings.com/economic-transition-with-angus-deaton-and-anne-case/>
- » “Deaths of Despair” (death by drugs, alcohol and suicide)



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Suicide stats: Higher in the U.S.



Shows age 45-54 mortality rates for US white non-Hispanics (USW, in red), US Hispanics (USH, in blue), and six rich industrialized comparison countries

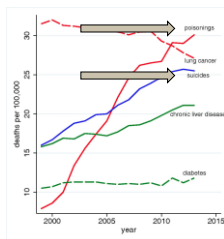
<https://www.pnas.org/content/112/49/15078>



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Suicide and Poisoning Stats

- » American suicides at their highest rate in 50 years (poisonings also increased)
- » 47,000 Americans committed suicide in 2017
- » National suicide rate has increased 33% between 1999-2017
- » Rate has increased (most dramatically in rural areas)
- » It is primarily white rural Americans who are killing themselves (broadly speaking)
- » Pronounced among middle-aged Americans (45-54)
- » Working class whites now dying at higher rates than minority groups



Mortality by cause, white non-Hispanics ages 45-54.

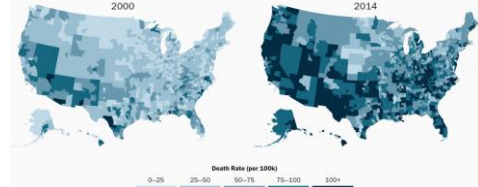


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“Epidemic”

In 2000, the epidemic was centered in the southwest. By the mid-2000s it had spread to Appalachia, Florida, and the west coast. Today, it's country-wide.

“Deaths of despair” for white non-Hispanics, 2000 and 2014
Ages 45-54, by county*



* www.brookings.edu/blog/brookings-now/2017/03/23/working-class-white-americans-are-now-dying-in-middle-age-at-faster-rates-than-minority-groups/



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Where does that put us?
Where do we start?



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Interview



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CLEAR Whole Person Care® Model

- C: Connect**
Connect with God, self, and others
- L: Listen**
Be fully present in a sacred time of sharing
- E: Explore**
Invite whole person conversations
- A: Acknowledge**
Empathize and communicate understanding
- R: Respond**
Share resources that affirm strength and offer hope

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CLEAR Whole Person Care® GUIDE (for education, research and practice)
Outcomes, Behaviors, Values and Measurable Skills

CONNECT *Connect with God (spiritual core), self and others*

Outcome: BUILD TRUST

Behaviors	Values	Measurable Skills
Prepare self for connecting with others	Awareness	<ul style="list-style-type: none"> • Spend a moment of quiet (spiritual) reflection before interacting with others • Focus attention on experiencing and exhibiting inner calmness
Greet with kindness!	Compassion	<ul style="list-style-type: none"> • Greet others with kindness (words, gestures and eye contact) • Give full attention and show selfless concern for the well-being of others
Recognize and introduce	Dignity	<ul style="list-style-type: none"> • Introduce everyone present (including family, peers and colleagues) • Scan the environment for something unique or specific to reference
Explain purpose	Transparency	<ul style="list-style-type: none"> • Explain the purpose of the interaction • Clarify questions regarding purpose using understandable language
Time: Provide timeframe	Accountability	<ul style="list-style-type: none"> • Explain timeframe for the interaction • Correctly estimate time needed
Engage and invite response	Collaboration	<ul style="list-style-type: none"> • Invite response and engage others in mutual conversation • Exhibit openness to needs, concerns and emotions

LISTEN *Be fully present in a sacred time of sharing*

Outcome: DEVELOP UNDERSTANDING

Behaviors	Values	Measurable Skills
Show ability to listen without interrupting	Self-regulation	<ul style="list-style-type: none"> • Listen for one minute without interrupting • Refrain from multitasking for one minute and then explain if multitasking is needed after that (charting, procedure, etc.)
Be fully present and listen with the whole being	Presence	<ul style="list-style-type: none"> • Pay attention with an open and curious mind to present-moment experiences without "checking out" • Acknowledge hints regarding needs, concerns and emotions
Listen with openness and respect	Respect	<ul style="list-style-type: none"> • "Treat the time as 'sacred' (unique and valuable) • Create a safe place for conversation (treat information with respect)
Give appropriate verbal and non-verbal feedback	Understanding	<ul style="list-style-type: none"> • Repeat what is heard and correctly label emotions • Exhibit understanding of what is heard

EXPLORE *Invite whole person conversations*

Outcome: ENCOURAGE WHOLENESS

Behaviors	Values	Measurable Skills
Value the four dimensions of health as interconnected through the spiritual dimension (physical, mental/emotional, social, spiritual)	Discovery	<ul style="list-style-type: none"> • Consider aspects of well-being beyond those presented (recognize presenting situation as only part of the story) • Explore a variety of beliefs, values and practices (regardless of one's own) with openness and interest
Discern areas of disconnect within and between the four dimensions	Integrity	<ul style="list-style-type: none"> • Exhibit ability to detect areas not in alignment with goals and well-being • Show ability to identify the main concern(s) even if not presented as such
Consider the physical dimension of well-being	Health	<ul style="list-style-type: none"> • Recognize presenting physical challenges • Exhibit ability to assess unidentified past or current physical challenges
Consider the mental/emotional dimension of well-being	Resilience	<ul style="list-style-type: none"> • Recognize cues that reflect both absence and presence of mental/emotional well-being • Recognize the capacity for self-care and identify areas of resilience
Consider the social dimension of well-being	Community	<ul style="list-style-type: none"> • Consider social determinants (economic and social conditions that influence health) • Explore whether there is at least one healthy (supportive) social connection
Consider the spiritual dimension of well-being	Spirituality	<ul style="list-style-type: none"> • Exhibit ability to assess and address spiritual concerns(s) • Consider source(s) of strength, meaning and purpose
Consider lifestyle behaviors	Prevention	<ul style="list-style-type: none"> • Consider presence of healthy lifestyle behaviors (exercise, diet, etc.) • Consider presence of unhealthy lifestyle behaviors (smoking, substance abuse, etc.)
Consider high-risk behaviors	Stability	<ul style="list-style-type: none"> • Recognize cues that are suggestive of high-risk behaviors • Exhibit ability to assess risk and safety
Recognize and respect various types of diversity	Humility	<ul style="list-style-type: none"> • Identify various areas of diversity and how they inform health practices, attitudes and needs (age, gender, sexual orientation, race, religion, socioeconomic status, culture, etc.) • Exhibit ability to respectfully integrate identified diversity needs (appropriate touch, language translation, aversion, use, etc.)

ACKNOWLEDGE *Empathize and communicate understanding*

Outcome: RECOGNIZE PERSPECTIVES

Behaviors	Values	Measurable Skills
Treat others with empathy	Empathy	<ul style="list-style-type: none"> • Make reflective comments that exhibit warmth, comprehension, and compassion (imagine being "in the shoes" of the other) • Maintain appropriate boundaries (attach in healthy ways without losing self)
Validate without judging	Acceptance	<ul style="list-style-type: none"> • Verily meaning of what is said • Convey empathy for the situation and/or emotions without condoning or criticizing
Respond appropriately to pain in self and others	Authenticity	<ul style="list-style-type: none"> • Exhibit ability to identify pain with authenticity and healthy emotions (self and others) • Exhibit ability to manage own pain and pain of others
Recognize biases and limitations in self and others	Insight	<ul style="list-style-type: none"> • Acknowledge biases and limitations in self and others (and circumstances that lead to them) • Exhibit compassion toward biases and limitations while acknowledging need for growth (self and others)

RESPOND *Share resources that affirm strength and offer hope*

Outcome: FACILITATE PROGRESS

Behaviors	Values	Measurable Skills
Affirm and empower personal strengths	Potential	<ul style="list-style-type: none"> • Develop a plan that considers and integrates strengths • Encourage the use of identified strengths
Refer to professional resources	Teamwork	<ul style="list-style-type: none"> • Make referrals as needed • Utilize and integrate available resources
Offer hope that is realistic and appropriate	Hope	<ul style="list-style-type: none"> • Assess need for strengthening hope • Offer hope congruent with beliefs and practices (stories, prayer, comments)
Assess need for follow-up visit	Responsibility	<ul style="list-style-type: none"> • Accurately assess type and timeframe for follow-up • Follow through on the identified plan
Reflect together and privately	Reflection	<ul style="list-style-type: none"> • Reflect on (and show appreciation for) the interaction • Identify the importance of reflecting gratefully on the interaction

Integration

- » **Clinical:** this has been integrated into all clinical areas through orientation and into leadership education
- » **Academic:** this has been integrated into almost all schools
- » **Personal:** we continue to work at this

What others are doing

- » Global Health Institute
- » Institute for Community Partnerships
- » Institute for Health Policy
- » Center for Christian Bioethics
- » Multiple international mission trips
- » Service integration into course offerings
- » Individual courses
- » Various roles within LLUH
- » Personal integration into practice

What does it mean to be whole?
Why do we “long” for it?



Because we were created to live in hope; not despair



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It matters; It MUST matter!

~ It is the great commission – that they might KNOW God – have a place of physical, mental/emotional, social, spiritual safety – and to experience unconditional love in that place



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Resources (a few “musts”)

» Books:

- *Dopesick* (Beth Macy)
- *Dreamland: the True Tale of America's Opiate Epidemic* (Sam Quinones)
- *Night Falls Fast: Understanding Suicide* (Kay Redfield Jamison)

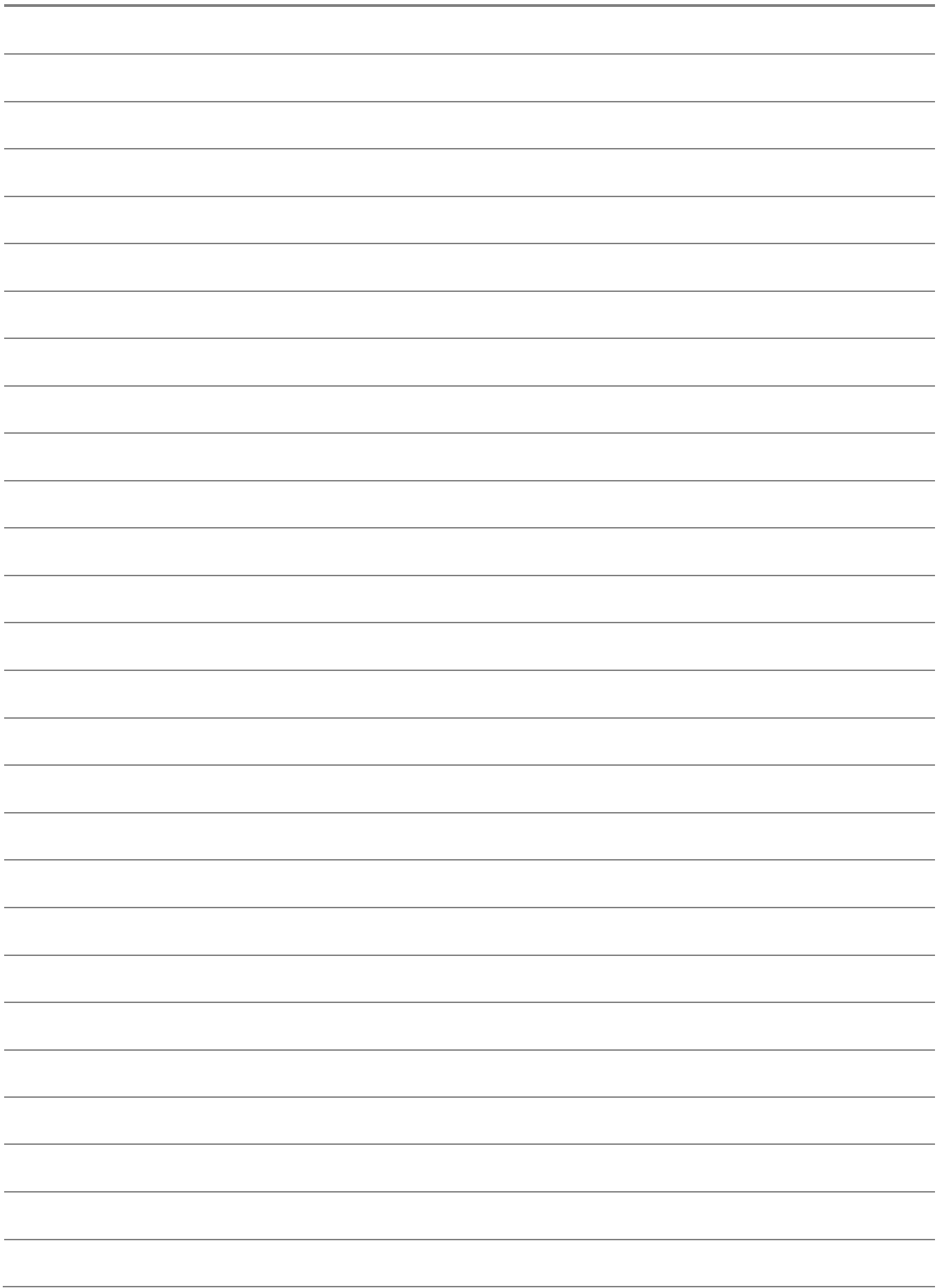
» Films

- *Beautiful Boy*



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Social and Behavioral Isolation

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Social and Behavioral Isolation

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Objectives:

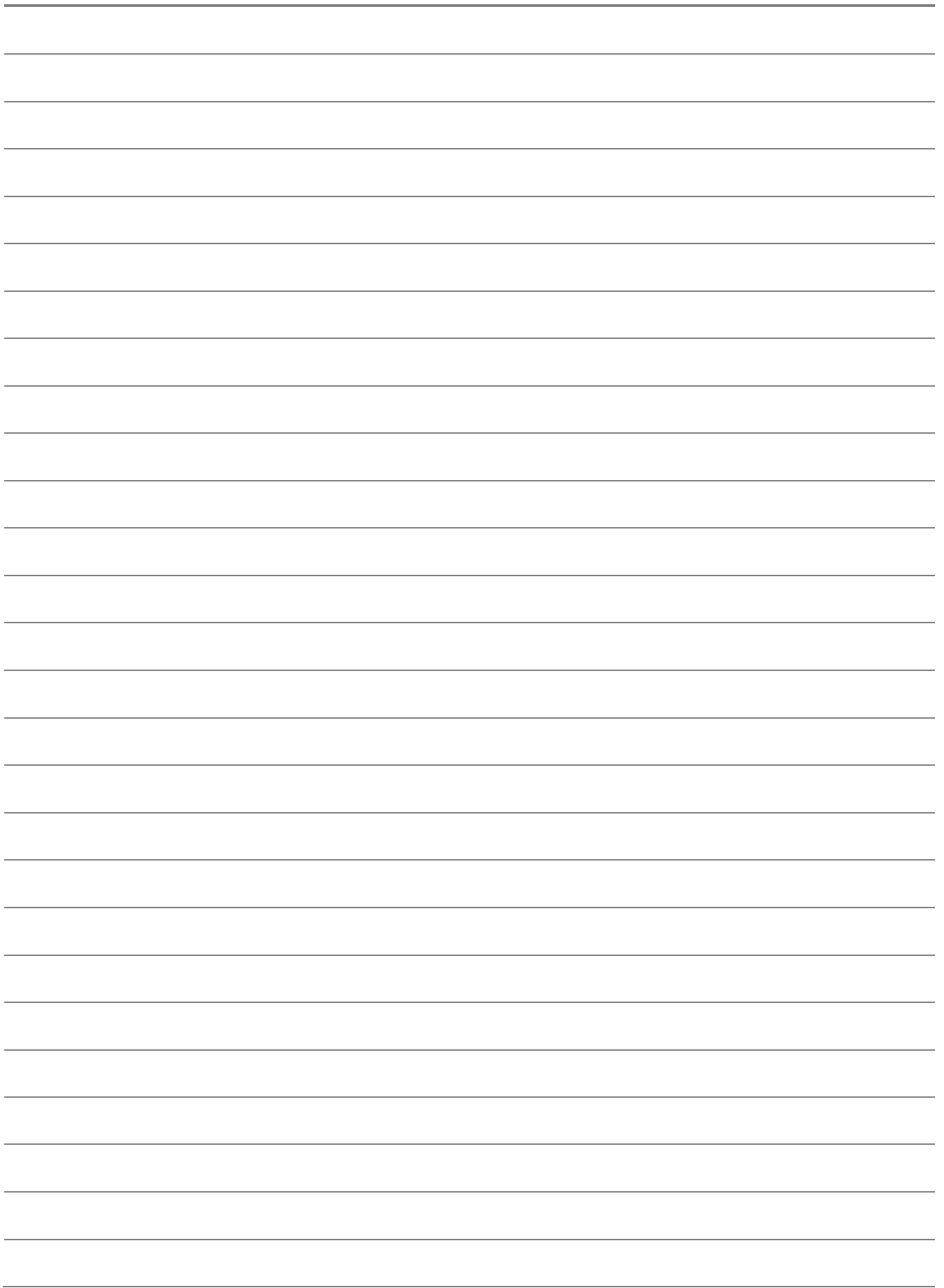
1. Explore the innovations and cutting-edge information in the field of behavioral health and how they relate to suicide and the opioid crisis
2. Discuss how social isolation relates to chronic pain and the opioid crisis
3. Discuss the link between social isolation and suicide
4. Explore interventions to reduce social and behavioral isolation

Outline

- Risk Factors
- Protective Factors
- Behavioral Health Factors
- Medical Providers
- Treatments
- Community

References

1. American Foundation for Suicide Prevention (AFSP, 2018). Retrieved from: www.afsp.org
2. Centers for Disease Control and Prevention (CDC, 2018). Retrieved from: www.cdc.gov
3. National Institute of Mental Health (NIMH, 2018). Retrieved from: www.nimh.nih.gov
4. Substance Abuse and Mental Health Services Administration (SAMHSA, 2018). Retrieved from: www.samhsa.gov
5. Luoma, J.B., Martin, C.E., & Pearson, J.L. (2002). Contact with mental health and primary care providers before suicide: A review of the evidence. *American Journal of Psychiatry*, 159: 909-916.
6. National Institutes for Mental Health (NIMH, 2018). Retrieved from: <https://www.nimh.nih.gov/health/topics/suicide-prevention/>
7. Rice, S., Robinson, J., Bendall, S., Hetrick, S., Cox, G., Bailey, E., Gleeson, J. & Alvarez-Jimenez, M. (2016). Online and Social Media Suicide Prevention Interventions for Young People: A focus on implementation and moderation. *J Can Acad Child Adolesc Psychiatry*, 25(2): 80–86.
8. Eccleston, C., Morley, S. & Williams, A. (2013). Psychological approaches to chronic pain management: Evidence and challenges. *British Journal of anaesthesia*, 111(1): 59-63
9. Poscia, A., Stojanovic, J., La Milia, D., Duplaga, M., Grysztar, M., Moscato, U., Onder, G., Collamati, A., & Ricciardi, W. (2017). *Experimental Gerontology*. Online – December, 2017.
10. Robinson, J. Cox, G., Bailey, E., Hetrick, S., Rodrigues, M., Fisher, S., & Herrman, H. (2016). Social media and suicide prevention: A systematic review. *Early Intervention in Psychiatry*. 10: 103-121.



Neurobiology of Suicide and Addictions

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Neurobiology of Suicide and Addictions

Dr. Katia Stoletniy

Disclosure

- Dr Katia Stoletniy – Medical Director of the Substance Use Recovery and Wellness Program (inpatient) at LLU BMC

Goals and Objectives

The participant should be able to:

1. Articulate Epidemiology, Definitions and Models for Suicide
2. Recognize Neurobiology of Suicide
3. Identify Definition, Cycle, Neurobiology of Opioid Addictions

Suicide

Epidemiology, Definitions, Models

Suicide

"Suicide is our most preventable form of death."

-Dr. David Satcher,
16th Surgeon General of
the United States



Epidemiology of Suicide

- 42,000+ die each year
- Rate: 12 -15 per 100,000/year
- 117+ per day now (1 commercial jet per day)
- One person every 12 minutes
- Of these deaths
 - 4 X male completions to female
 - 3 X females to male attempts
- Suicide is no respecter of age, race, religion, social or economic status; *its an equal opportunity mode of death.*

Definitions

- Suicidality
 - Occurrence of suicidal thoughts, ideations, or behaviors
- Suicidal Behavior
 - Acts of self-harm with a fatal or nonfatal outcome
- The definition of attempted suicide is complex because this behavior is characterized by several dimensions

Suicide Attempt

Definition

"Any potentially self-injurious action, with a nonfatal outcome, for which there is evidence, either explicit or implicit, that the individual intended to kill himself or herself."

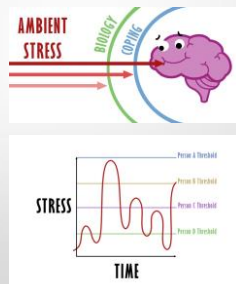
Carol, Berman, Maris, et. Al, 1996

Dimensions to Consider

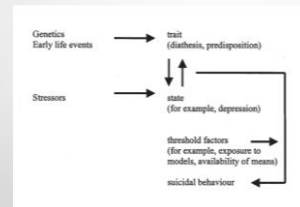
- Medical damage
- Lethality of methods used
- Level of suicidal intent
 - May or may not be considered

Models to Explain SA

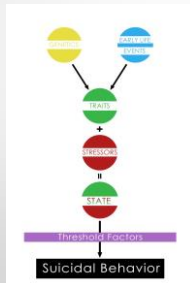
- Stress-diathesis model
- Process model
- The trait-dependent and the state-dependent factors can be described in psychological and biological terms



The State-trait Interaction Component of the Process Model



The State-trait Interaction Component of the Process Model



Trait-dependent Predisposition

Defeat	No Escape	No Rescue
<ul style="list-style-type: none"> • Tendency to perceive oneself as a loser 	<ul style="list-style-type: none"> • Associated with autobiographical memory impairment and problem-solving deficits 	<ul style="list-style-type: none"> • Tendency to develop feelings of hopelessness

Neurobiology of Suicide and Suicidality

Heritability, Epigenetics, and Neuroimaging

Neurobiology of Suicide

- Elevated **24-hour urinary cortisol** production in patients who recently attempted suicide
- Increased suicide risk with **decreasing cholesterol levels**
- Elevated levels of **CRH** in the CSF of suicide victims
- Low CSF **5-HIAA** predicts future suicide attempts and completed suicide

Neurobiology of Suicide (cont'd)

- A blunted **prolactin** response to a challenge with the 5-HT-releasing drug fenfluramine in patients who suffer from MDD or personality disorders and who have a history of SA
- Reduced **5-HT uptake**, fewer **serotonin transporter (5-HTT)** sites, and increased density of **5-HT_{2A} receptors** have been found in platelets of suicidal subjects with depression.
- Reduced binding sites for CRH have been found in postmortem brains of suicide victims

Neurobiology of Suicide (cont'd)

- Some studies indicate that **5-HT receptor** populations are altered in the brains of suicide victims:
 - there are decreases in presynaptic binding sites in the prefrontal cortex (for example, reduced 5-HTT binding)
 - and increases in postsynaptic receptors such as the 5-HT_{1A} and 5-HT_{2A} receptors

Neurobiology of Suicide (cont'd)

- Fewer **noradrenergic neurons** in the locus coeruleus of suicide victims
- Reduced **binding potential of the 5-HT_{2A} receptor** in the prefrontal cortex of patients who have attempted suicide

Heritability

- There is consistent evidence suggesting that genetic factors play an important role in the predisposition to suicide and suicidal behaviors.
- Farmer and coworkers could not show a genetic effect on the occurrence of suicidal ideation

Tureckij, G. (2001).
Brent, D. A., (2002).

Heritability (cont'd)

- Increased rate of suicide attempts in the first-degree relatives of suicide probands
- It has been suggested that completed suicide and attempted suicide differ with regard to genetic variability

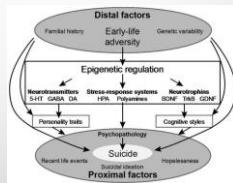
Farmer, A. (2001)
Van Heeringen, K. (2003)

3 Systems Involved in Suicidal Behavior

- 1 Hyperactivity of the HPA axis
 - 2 Excessive release of norepinephrine and associated changes in the noradrenergic neurotransmission system
 - 3 Deficient 5-HTergic system
- Dopaminergic system is implicated in post-mortem CSF studies*

Epigenetics

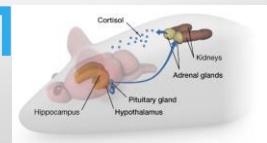
- Gene expression is affected by physical, chemical, and social factors
- Research focused on early-life adversity for suicide specifically
 - E.g. childhood sexual and physical abuse, neglect



Epigenetics in Rat Model



Can be reversed with methionine



Epigenetic Examples

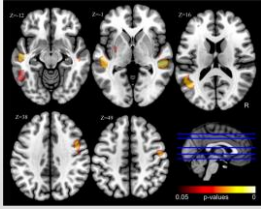
Childhood abuse → Increased corticotropin-releasing hormone levels → Decreased CSF oxytocin levels

- A study that followed up after 15 years found that patients who were non-suppressors to the dexamethasone suppression test had a 26.8% risk of dying by suicide compared to 2.9% for controls.
- Low hippocampal GR levels were found in those with a history of childhood abuse who die by suicide but not those who die by suicide without a history of abuse.

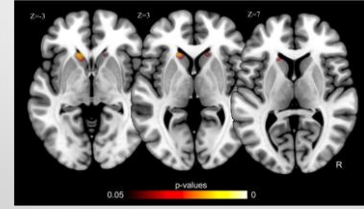
Neuroimaging

- Study using T1 MRIs with suicide attempters (n = 49), patient controls (n = 60), healthy controls (n = 100), first-degree relative controls (n = 32)
- Considered family history of suicide (increased risk of suicide attempts) and violent suicidal means (increased risk of death)
- GingerALE program and Gaussian probability mapping to locate foci
- Limited differences between suicide attempters and controls and none found in meta analysis
- Family history of suicide was associated with reduced volumes in bilateral temporal regions, right dorsolateral prefrontal cortex, and left putamen
- Violent means of suicide were associated with increased bilateral caudate (and left putamen) volumes

Family History of Suicide



Violent Suicidal Means



Addiction

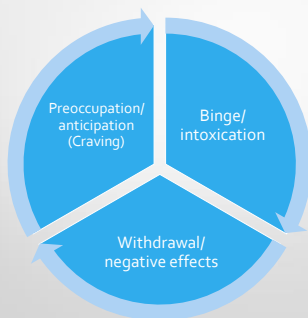
Definition, Cycle, Neurobiology

Addiction Definition

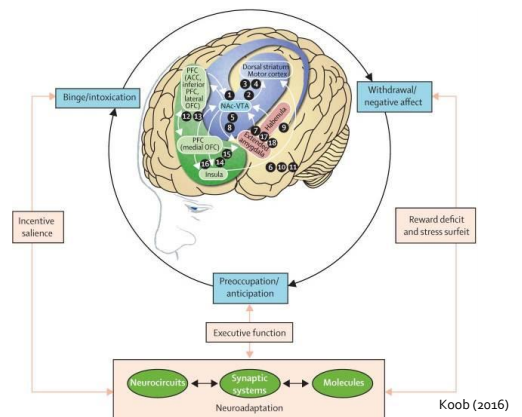
- Drug addiction can be defined as
 - a chronically relapsing disorder,
 - characterized by compulsion to seek and take the drug,
 - loss of control in limiting intake,
 - and emergence of a negative emotional state (eg, dysphoria, anxiety, irritability) when access to the drug is prevented.

Koob (2016)

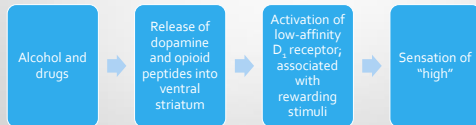
Addiction Cycle



Koob (2016)



PET Scan Studies



Drug Reward

Locations

- Basal forebrain
- Ventral tegmental area
- Nucleus accumbens

Neurotransmitters/Neuromodulators Systems

- Dopamine
- Opioid peptides
- γ -aminobutyric acid (GABA)
- Glutamate
- Serotonin
- Acetylcholine
- Endocannabinoid

Incentive Salience

Conditional Reinforcement

- Drugs of abuse affect responses to previously neutral stimuli
- Defined as when a previously neutral stimulus reinforces or strengthens behaviors through its association with a primary reinforcer and becomes a reinforcer in its own right
- Precedes and lays the foundation for incentive salience

Incentive Salience

- Defined as motivation for rewards derived from both one's physiological state and previously learned associations about a reward cue
- Mediated by the mesocorticolimbic dopamine system
- Both underlie cue-induced drug seeking, self-administration behaviors, and the transition to habit-like compulsive drug seeking.

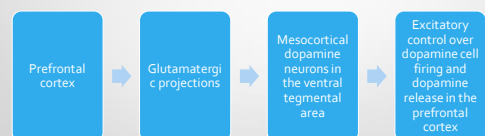
Incentive Salience Neurobiology

- Midbrain dopamine cells initially fired in response to a novel reward
 - After repeated exposure, the neurons stopped firing during predictable reward delivery and instead fired when they were exposed to stimuli that were predictive of the reward
 - Triggers phasic dopamine cell firing and activation of dopamine D_1 receptors
- Phasic dopamine signaling can also trigger neuroadaptations in basal ganglia
 - Triggers the ability of drug-paired cues to increase dopamine levels

Neurobiological mechanisms of the withdrawal/negative affect stage

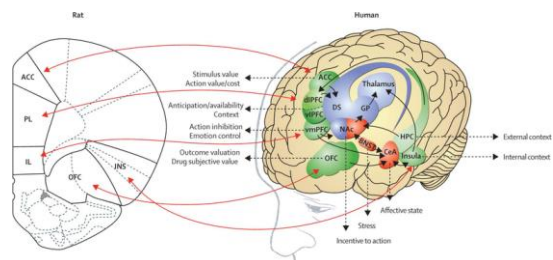


Neurobiological Mechanisms of the Preoccupation/anticipation Stage: in Rats



Neurobiological Mechanisms of the Preoccupation/anticipation Stage (cont'd)

- Executive control over incentive salience is essential to maintain goal-directed behavior and the flexibility of stimulus-response associations
- Glutamatergic projections from the prefrontal cortex to the caudate and ventral striatum also modulate the control of the striatal-pallidal-thalamo-cortical system through both direct (D1 receptor-mediated) and indirect (D2 receptor-mediated) pathways



Neurobiology of Opioid Use Disorder

- NIH-funded research currently focuses on the later stages of drug addiction, i.e. drug craving and relapse
- Given iatrogenesis of opioid use disorder, prevention strategies that target the early stage of drug addiction should be developed.
- A deeper understanding of opioid neurobiology is required to change the focus
- Instead of examining opiate-induced changes only at the neural circuit level or with brain imaging to identify involved brain regions, opiate-induced changes in synaptic signaling should be characterized

Neuroimaging of Opioid Use Disorder

- Individuals with OUD display widespread heightened neural activation to heroin cues.
- This pattern is potentiated by heroin, attenuated by medication-assisted treatments for opioids, predicts treatment response, and is reduced following extended abstinence.

Moningka, H (2018)

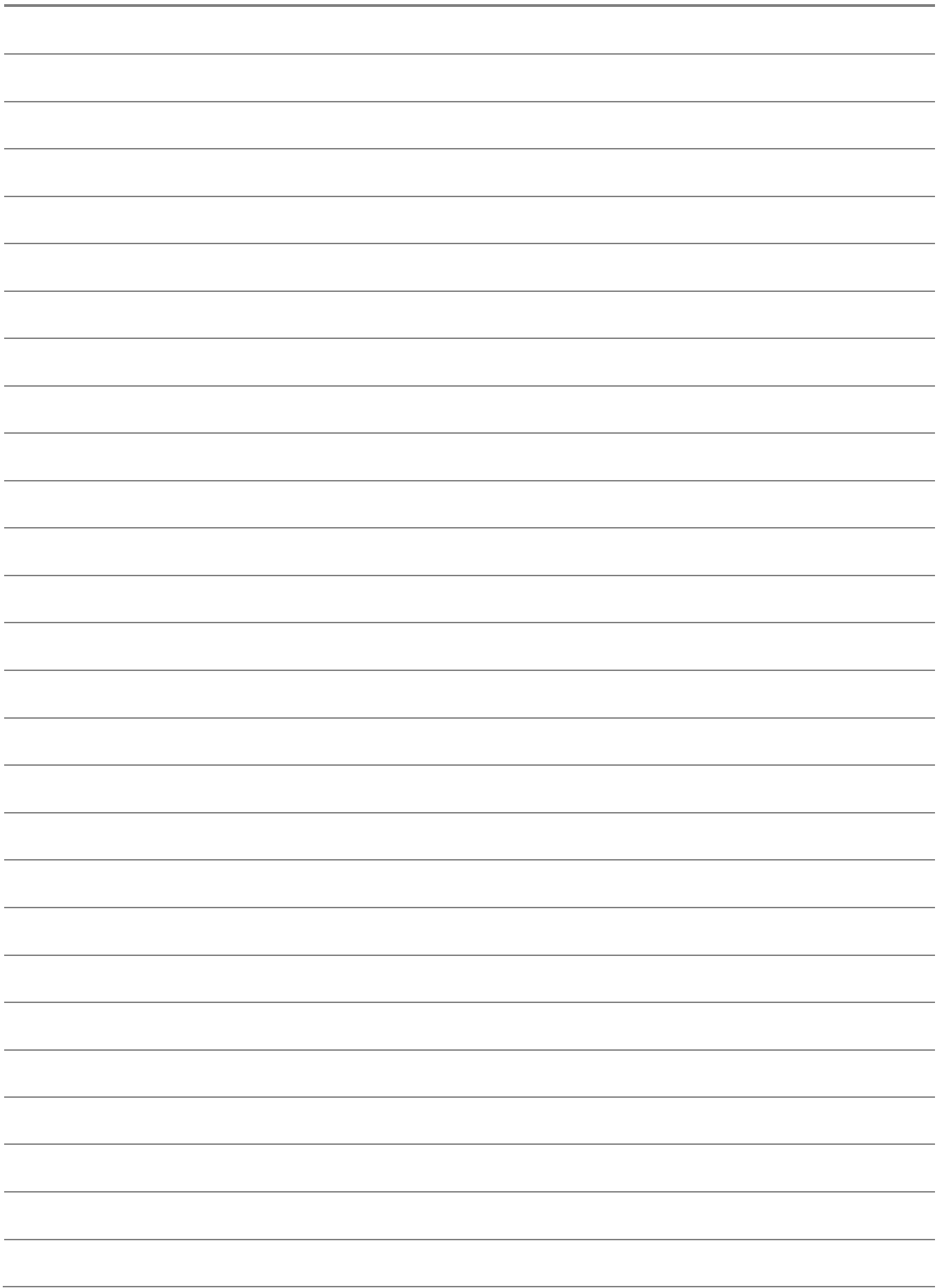
Individuals Who Relapsed Had:

- Enhanced activation to drug-related cues and rewards, but reduced activation to non-drug-related cues and rewards, in multiple corticolimbic and corticostriatal brain regions;
- Weakened functional connectivity of these same corticolimbic and corticostriatal regions
- Reduced gray and white matter volume and connectivity in prefrontal regions

Moeller (2018)

References

- Van Heeringen, K. (2003). The neurobiology of suicide and suicidality. *The Canadian Journal of Psychiatry*, 48(5), 292-300.
- Turecki, G. (2002). Suicidal behavior: is there a genetic predisposition? *Bipolar disorders*, 3(6), 335-349.
- Brent, D. A., Bridge, J., Johnson, B. A., & Connolly, J. (2002). Suicidal behavior runs in families. In *Suicide Prevention* (pp. 51-69). Springer, Boston, MA.
- Farmer, A., Redman, K., Harris, T., Webb, R., Mahmood, A., Sadler, S., & McGuffin, P. (2002). The Cardiff sib-pair study. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*, 22(1), 72.
- Van Heeringen, K. (2003). The neurobiology of suicide and suicidality. *The Canadian Journal of Psychiatry*, 48(5), 292-300.
- Koob, G. F., & Volkow, N. D. (2016). Neurobiology of addiction: a neurocircuitry analysis. *The Lancet Psychiatry*, 3(8), 760-773.
- Moninga, H., Lickenstein, S., Wurfelsky, P. D., DeVito, E. E., Schuster, D., & Yip, S. W. (2018). Can neuroimaging help combat the opioid epidemic? A systematic review of clinical and pharmacological challenge fMRI studies with recommendations for future research. *Neuropsychopharmacology*, 1.
- Moeller, S. J., & Paulus, M. P. (2018). Toward biomarkers of the addicted human brain: using neuroimaging to predict relapse and sustained abstinence in substance use disorder. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 80, 143-154.



Ethics and Faith for a Whole Life

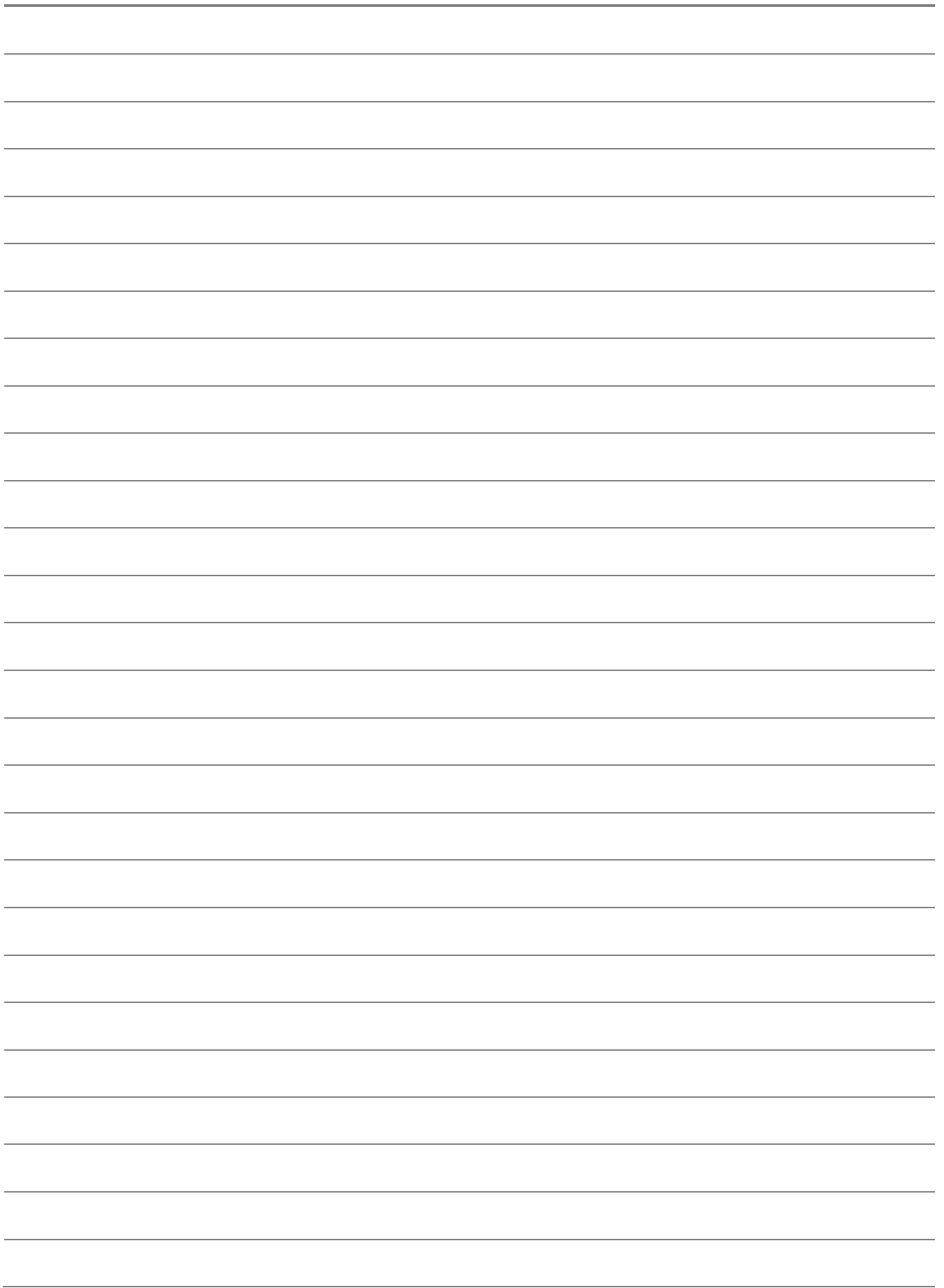
Gerald R. Winslow, PhD
Professor of Religion
Director, Center for Christian Bioethics
Founding Director, Institute for Health Policy and Leadership
Loma Linda University Health

The discussion will explore how a life of integrity contributes to human wholeness, and how the faith community can support such a life. Practical applications will then be suggested for the nation's current opioid crisis and the tragic loss of life that has become epidemic in our society.

Objectives

- Describe how convictions of faith can foster the wholeness of personal integrity.
- Explain how communities of faith are making practical use of their spiritual resources to address the opioid crisis in our society.

Presentation was not available at the time of printing.





Today's panel presentations will be using interactive technology to facilitate your participation. Please join us using your mobile device.

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Visit the website

Go to:
<https://pollev.com/lluipe>

Text your response

Text the word: LLUIPE to
37607

Hope and Healing: Fighting back against suicide

Jennifer Weniger, PhD
Clinical Psychologist
Educator, Residency Programs
Loma Linda University Behavioral Medicine Center
Associate Clinical Professor
Loma Linda University School of Behavioral Health

Hope and Healing:
Fighting back against suicide
Jennifer Weniger, PhD

Objectives:

1. Provide current statistics regarding suicide in our country.
2. Discuss risk and protective factors regarding suicide.
3. Discuss ways in which to respond to suicide ideation and behaviors.
4. Discuss online resources regarding suicide prevention.

Outline

- Statistics
- Risk Factors
- Protective Factors
- What to Do?
- *Transition to Panel Discussion*

References

1. CAMS Training <https://cams-care.com/about-cams/>
2. QPR Institute <https://qprinstitute.com/>
3. American Foundation for Suicide Prevention
4. <https://afsp.org/>
5. American Association for Suicidology
6. <https://www.suicidology.org/>
7. ASIST Training
8. <https://afsp.org/event/applied-suicide-intervention-skills-training-asist-3/>
9. National Suicide Prevention Lifeline
10. <https://suicidepreventionlifeline.org/>
11. Zero Suicide Initiative <https://zerosuicide.sprc.org/toolkit/treat>

Interdisciplinary Panel Discussion Suicide

Beverly Buckles, DSW
Moderator

Erin Richards, DDS
Facilitator

Ehren Ngo, MS
Contributor

Jennifer Weniger, PhD
Introduction Speaker

Panelists

Adam Aréchiga, PsyD, DrPH, MA

Gloria Huerta, DNP

Jessa Koch, PharmD

Darcy Trenkle, MD

Jennifer Weniger, PhD

Focal presentation on suicide in the general population, among healthcare providers, audience participation through Poll Everywhere, interprofessional application and next steps.

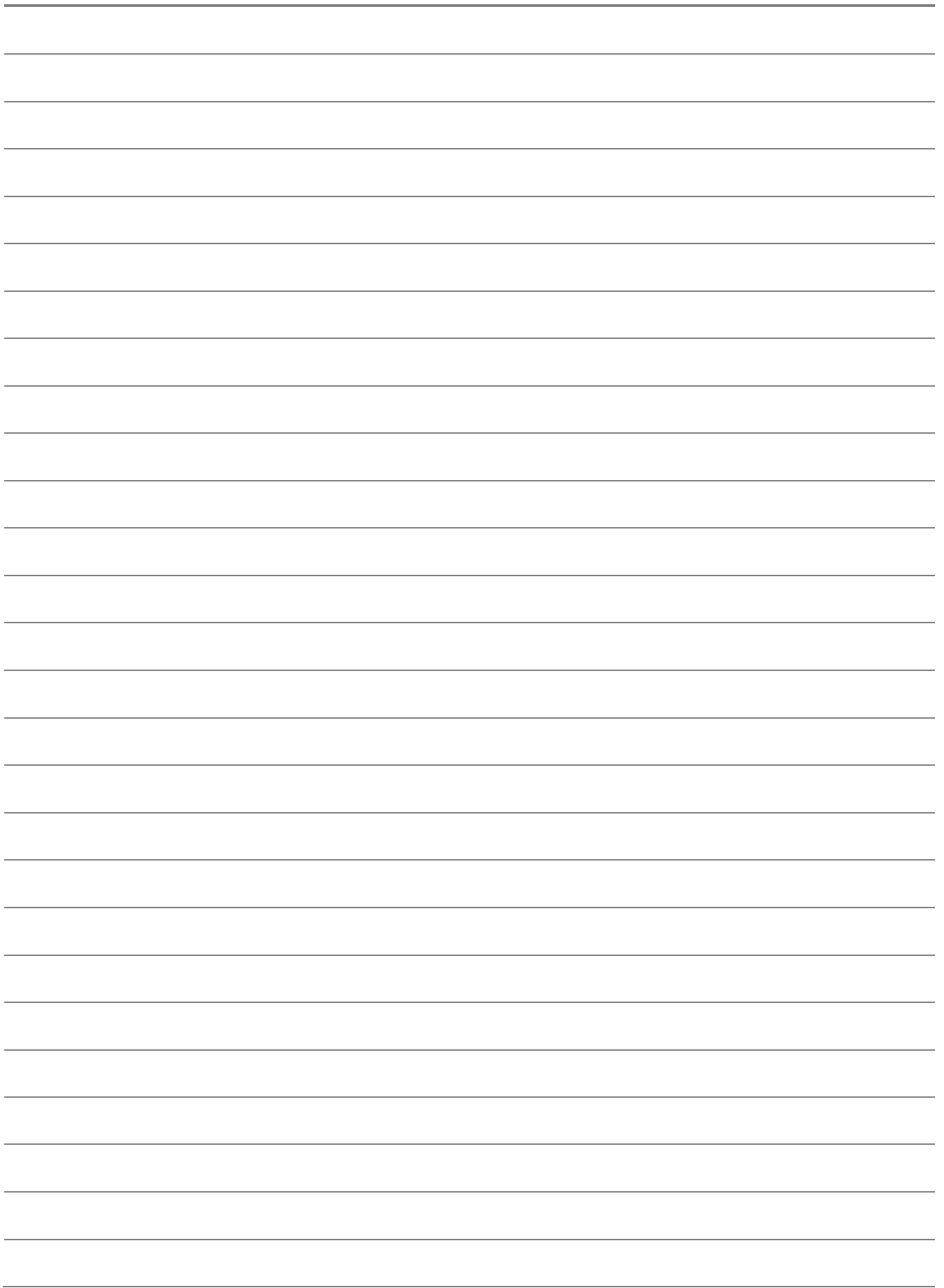
Objectives:

- Examine tools for advancing the practice and science of suicide prevention and intervention.
- Employ interprofessional methods by which the Whole Person Care approach can be integrated into suicide prevention and intervention.

National Suicide Prevention Lifeline: (800) 273-8255

References

1. National Suicide Prevention Lifeline. (2019). Retrieved from <https://suicidepreventionlifeline.org/>
2. American Foundation for Suicide Prevention. (2019). Retrieved from <https://afsp.org/>
3. Suicide Awareness Voices of Education. (2019). Retrieved from <https://save.org/>
4. Substance Abuse and Mental Health Services Administration. (2019). *Suicide prevention*. Retrieved from <https://www.samhsa.gov/find-help/suicide-prevention>
5. National Institute of Mental Health. (2016). *NIMH Answers Questions About Suicide*. Retrieved from <https://www.nimh.nih.gov/health/publications/nimh-answers-questions-about-suicide/index.shtml>
6. R U OK? (2019). Retrieved from <https://www.ruok.org.au/>
7. National Institute of Mental Health. (2017). Ask Suicide-Screening Questions (ASQ) Toolkit. Retrieved from <https://www.nimh.nih.gov/labs-at-nimh/asq-toolkit-materials/index.shtml>
8. Iverson Foundation for Active Awareness. (2019). Retrieved from <https://iversonfaa.org/>
9. International Association of Chiefs and Police. (2019). *Law Enforcement Suicide Prevention and Awareness*. Retrieved from <https://www.theiacp.org/resources/document/law-enforcement-suicide-prevention-and-awareness>
10. National Alliance on Mental Illness. (2019). *Law Enforcement Officers*. Retrieved from <https://www.nami.org/find-support/law-enforcement-officers>



Opioids

Justin Hata, MD

Chair, PM&R and Pain Management

Medical Director, Loma Linda Center for Pain Management

Program Director, Loma Linda University Pain Management Fellowship

Opioids

Justin Hata, MD

Objectives:

1. Examine tools for advancing the practice and science of opioid misuse through prevention and intervention.
2. Employ interprofessional methods by which the Whole Person Care approach can be integrated into the prevention and intervention of opioid misuse.

Outline

- Brief History of Opioids
- Recent History of Opioid Prescribing
- Current Insurance and Government Actions
- Addressing the Epidemic
- How can LLUMC Pain Management Center help?
- *Transition to Panel Discussion*

References

1. Porter, J., Jick, H. *Addiction rare in patients treated with narcotics*. New England Journal of Medicine. 1980 Jan 10;302(2):123.
2. U.S. Department of Health and Human Services. (2014). *The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General*. (Report No. 12). Retrieved from <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/50-years-of-progress-by-section.html>.
3. Center for Disease Control and Prevention (2019). *Opioid Overdose*. Retrieved from <https://www.cdc.gov/drugoverdose/index.html>.

Interdisciplinary Panel Discussion

Opioids

Michael Hogue, PharmD
Moderator

Erin Richards, DDS
Facilitator

Ehren Ngo, MS
Contributor

Justin Hata, MD
Introduction Speaker

Panelists

Brenda Boyle, DNP

Jose Cesar, MD

Alan Herford, DDS, MD

Wonha Kim, MD

Jessa Koch, PharmD

Ricardo Whyte, MD

Focal presentation on suicide in the general population, among healthcare providers, audience participation through Poll Everywhere, interprofessional application and next steps.

Objectives:

- Examine tools for advancing the practice and science of opioid misuse through prevention and intervention.
- Employ interprofessional methods in which to integrate the Whole Person Care prevention and intervention of opioid misuse.

References

1. Centers for Disease Control and Prevention. (2015). New research reveals the trends and risk factors behind America's growing heroin epidemic. Retrieved from <https://www.cdc.gov/media/releases/2015/p0707-heroin-epidemic.html>
2. Institute for Health Policy and Leadership. [LLUH IHPL]. (2017) *Beyond the clinical: The opioid epidemic*. Retrieved from <https://www.youtube.com/watch?v=ljrsrFsZIUM>
3. Institute for Health Policy and Leadership. (2016). *Opioid abuse part 1: Headlines and policy*. Retrieved from <https://ihpl.llu.edu/blog/opioid-abuse-part-1-headlines-and-policy#comments>
4. Institute for Health Policy and Leadership. (2016). *Opioid abuse part 2: Crisis in context*. Retrieved from <https://ihpl.llu.edu/blog/opioid-abuse-part-2-crisis-context>
5. Institute for Health Policy and Leadership. (2016). *Opioid abuse part 3: Responsibility, policy and the future*. Retrieved from <https://ihpl.llu.edu/blog/opioid-abuse-part-3-responsibility-policy-and-future>
6. Institute for Health Policy and Leadership. (2018). *To separate an opioid dependent baby from its mother or not to separate?* Retrieved from <https://ihpl.llu.edu/blog/separate-opioid-dependent-baby-its-mother-or-not-separate>
7. Mayo Clinic. (2018). How opioid addiction occurs. Retrieved from <https://www.mayoclinic.org/diseases-conditions/prescription-drug-abuse/in-depth/how-opioid-addiction-occurs/art-20360372>
8. Mayo Clinic. (2016, September 22). *Mayo Clinic Minute: Be careful not to pop pain pills*. Retrieved from https://www.youtube.com/watch?time_continue=12&v=YcENrBVXPsY
9. Mayo Clinic. (2016, September 22). *Mayo Clinic Minute: The face of prescription opioid addiction*. Retrieved from <https://www.youtube.com/watch?v=7IHw0mklkWE#action=share>
10. Jansen, Bruce. (2019). Amid opioid crisis, the Joint Commission revises pain management standards. Retrieved from <https://www.forbes.com/sites/brucejansen/2019/01/03/amid-opioid-crisis-the-joint-commission-revises-pain-standards-for-health-facilities/#4b82da175686>
11. Pedersen, Traci. (2019). Early physical therapy may reduce opioid use for severe pain. Retrieved from <https://psychcentral.com/news/2019/01/02/early-physical-therapy-may-reduce-opioid-use-for-severe-pain/141631.html>
12. Rader, Jan. (2018, November). *In the opioid crisis, here's what it takes to save a life*. Retrieved from https://www.ted.com/talks/jan_rader_in_the_opioid_crisis_here_s_what_it_takes_to_save_a_life
13. Schroeder AR, Dehghan M, Newman TB, Bentley JP, Park KT. (2018). Association of Opioid Prescriptions From Dental Clinicians for US Adolescents and Young Adults With Subsequent Opioid Use and Abuse. *JAMA Intern Med.* 2019;179(2):145–152. doi:10.1001/jamainternmed.2018.5419
14. Somerman, Martha J. et al. (2018). The role of the oral health community in addressing the opioid overdose epidemic. *The Journal of the American Dental Association*, 149(8), 663-665. doi.org/10.1016/j.adaj.2018.06.010
15. World Health Organization. (2018). Information sheet on opioid overdose. Retrieved from https://www.who.int/substance_abuse/information-sheet/en/

