

### Appendix 18: Clinical Health Psychology Emphasis Area at IUPUI

Clinical health psychology is the study of the interrelationships among behavioral, emotional, cognitive, social, and biological processes and physical illness and health. Clinical health psychologists collaborate with other healthcare researchers and practitioners, including physicians, nurses, social workers, and other allied health professionals. The goals of clinical health psychology include the development and empirical investigation of theories and interventions that promote health and prevent, ameliorate, or manage disease and disability. Students with training in clinical health psychology will be prepared to enter the field as researchers, practitioners, and/or administrators in a variety of settings, including universities, medical schools, hospitals and medical centers, clinics, private practice, and government agencies.

The clinical health psychology emphasis area at IUPUI is completed in conjunction with the requirements of our APA-accredited clinical psychology program. The Department of Psychology is housed in the School of Science, and our training is based on the Clinical Science Model (i.e., emphasis on training students to conduct scientific research). We are a member of the Council of Clinical Health Psychology Training Programs (CCHPTP) ([www.cchptp.org](http://www.cchptp.org)). Faculty members within the Department of Psychology and in other units across campus provide mentoring, instruction, and supervision. We provide core course work in our department, and additional related coursework is available through the Departments of Public Health, Sociology, and Anthropology and the Schools of Medicine, Nursing, Social Work, and Law. The Department of Psychology provides financial support for Ph.D. students throughout their graduate education. We make the commitment to support students in good standing for five years.

#### Clinical Health Psychology Setting at IUPUI

IUPUI is the designated health and life sciences campus for the state of Indiana, and it houses the state's graduate training in the health professions, such as the Schools of Medicine (Indiana's only medical school and the nation's largest student body), Nursing, Dentistry, Public Health, and Social Work. Numerous healthcare facilities are located on campus and provide copious research and training opportunities for our students.

On-campus healthcare facilities include:

Indiana Clinical and Translational Sciences Institute (CTSI; [www.indianactsi.org](http://www.indianactsi.org)): The Indiana CTSI is a statewide collaboration of Indiana University, Purdue University, and the University of Notre Dame, as well as public and private partnerships, which facilitates the translation of scientific discoveries in the laboratory into clinical trials and new patient treatments in Indiana and beyond. Established in 2008, the Indiana CTSI was created with a \$25 million Clinical and Translational Science Award from the National Center for Research Resources of the National Institutes of Health, supplemented by nearly \$60 million from the state, the three member universities, and public and private partnerships. The Indiana CTSI is a member of a national network of 55 CTSA-funded organizations across the United States.

Indiana University Hospital (<http://iuhealth.org>): IU Hospital is a major teaching hospital and recognized leader in technology. It offers treatments, therapies, and procedures that are found only in the most advanced academic medical centers. Several of IU Hospital's clinical programs are consistently ranked among the best in the nation by *U.S. News & World Report*.

Indiana University Melvin and Bren Simon Cancer Center (<http://www.cancer.iu.edu>): The IU Simon Cancer Center is a patient care, research, and educational organization within the Indiana

University School of Medicine. Established in 1992 as the IU Cancer Center, it has been an NCI-designated Cancer Center since 1999 and is the only center with such distinction in Indiana that provides patient care.

Indiana University School of Medicine, Section of Adolescent Medicine (SOAM)

(<http://pediatrics.iu.edu/sections-and-faculty/adolescent-medicine/about-us/>): The SOAM faculty has internationally recognized expertise in adolescent health behavior research, including a focus on problem behaviors such as violence, sexually transmitted infections, and drug use. As one of the largest and most active academically-oriented adolescent medicine sections of its kind in the country, the SOAM also provides clinical services to roughly 20,000 adolescents in outpatient and inpatient care within Marion County, Indiana. Additionally, the SOAM has provided care at the Marion County Detention Center since 2008.

Riley Hospital for Children at Indiana University (<https://www.rileychildrens.org>): Riley

Hospital provides comprehensive, state-of-the-art clinical services for children and is routinely ranked as one of the nation's top children's hospitals by *U.S. News & World Report*. Riley Hospital trains clinicians who provide healthcare to children and conducts cutting-edge research to improve the diagnosis and treatment of serious disorders in children.

Eskenazi Health and Eskenazi Hospital (<http://www.eskenazihealth.edu>): Eskenazi Health is one of America's five largest safety net health systems, providing care to nearly 1 million outpatient visitors each year. It is also one of the leading providers of health care in Central Indiana, with physicians of the Indiana University School of Medicine providing a comprehensive range of primary and specialty care services within their 315-bed hospital and inpatient facilities and 11 community health centers located throughout Indianapolis. Approximately 90% of Eskenazi Health patients are underinsured or uninsured, and 50% are African American. Eskenazi Hospital, located on campus, has a Level I Trauma Center and nationally recognized services, including Midtown Community Mental Health Center, IU National Center of Excellence in Women's Health, and the Richard M. Fairbanks Burn Center.

Regenstrief Institute, Inc. (<http://www.regenstrief.org>): The Regenstrief Institute is an Indiana non-profit corporation formed in December 2001 to conduct and facilitate health care research, health care education, and clinical care. The Institute is affiliated with the Indiana University School of Medicine and Eskenazi Health. The Institute employs approximately 150 full-time staff and 35 investigators, who are faculty members of Indiana University. For almost 40 years, the Institute has supported numerous investigators in health services, aging, and medical informatics research. The research milieu within the Institute offers access to other faculty scientists with a wealth of interdisciplinary health services research expertise, including gerontology, medical sociology, social science, epidemiology, biostatistics, health economics, computer science, medical informatics, medical outcomes, and implementation research.

Richard L. Roudebush VA Medical Center (<http://www.indianapolis.va.gov>): Roudebush VAMC has been serving Veterans since 1932. At present, it offers primary and specialty healthcare services to almost 200,000 military veterans from a 45-county area in Indiana and Illinois. The medical center promotes medical affiliate training, education, and research and is aggressively using emerging technology in the tele-home care and tele-disease management arenas.

### **Clinical Health Psychology Curriculum**

Students in the clinical health psychology emphasis area complete the requirements for IUPUI's general clinical program. In addition, they are required to complete the two core courses in health psychology, elective courses, and two health psychology practica.

#### Core Courses

*PSY-I 614 Behavioral Medicine in Rehabilitation*

The theory and practice of behavioral medicine is explored. Emphasis is on the application of behavioral principles to individuals suffering from various chronic diseases or disabilities, including spinal cord injury, chronic pain, cancer, diabetes, strokes, cardiovascular diseases, and epilepsy.

*PSY-I 618 Interventions in Health Psychology*

The primary aim of this course is to familiarize students with the practice of clinical health psychology, although history, theory, research, and ethical issues are also covered. In addition to being taught core clinical skills, students learn specific assessment and intervention techniques for various health-relevant behaviors (e.g., smoking) and patient populations (e.g., chronic pain patients).

#### Elective Courses\*

*PSY-I 535 Clinical Neuroscience*

The emphasis of this course is the neurobiological foundations of mental health and mental illness. A primary goal is to examine how psychology, neuroscience, pharmacology, and medicine come together to manage mental illness. The nature of how biological alterations lead to aberrant behaviors that define psychopathology is examined, as well as the ethics involved in the field.

*PSY-I 545 Psychopharmacology*

A survey of the effects of drugs on behavior, cognitive functioning, and emotions. Emphasis is placed on the practical advantages of understanding how psychotropic drugs work, and on how the brain functions in health and disease. Students are exposed to the most current theories and research in the field.

*PSY-I 560 Behavioral Genetics*

*PSY 61500 Introduction to Psychobiology*

A survey of the integrated neurosciences emphasizing physiological psychology. Neural processes of sensory and motor function, arousal and sleep, motivation, learning and memory, language function, and personality disorders are presented with selected coverage of neuroanatomy, neurophysiology, neuropharmacology, and neuroendocrinology. Both normal and pathological functions are covered.

\*Students in the clinical health psychology emphasis area often take courses outside of the Department of Psychology, such as those offered by the Schools of Medicine, Nursing, and Public Health.

### **Clinical Health Psychology Practica Sites**

Students receive supervision by licensed clinical psychologists at our practica sites. Below is a list of our current sites relevant to clinical health psychology. Of note, new placements are developed regularly.

#### Primary Care

Raphael Health Center – Indianapolis  
 Roudebush VAMC – Primary Care Clinic  
 St. Vincent Hospital – Primary Care Clinic  
 Eskenazi Health – Primary Care Clinics in the surrounding community

#### Specialty Clinics

Charis Center for Eating Disorders  
 Community Hospital South Bariatric Center  
 Community Hospital North Women’s Health  
 Indiana Polyclinic – Multidisciplinary Pain Center  
 Indiana University Medical Center – Diabetes Clinic, MDC Unit  
 Indiana University Medical Center – Department of Neurology  
 Indiana University Medical Center – Neuropsychology Clinic  
 Indiana University Outpatient Psychiatry – Sleep Medicine  
 Riley Hospital Pediatric Consultation-Liaison Clinic  
 Riley Hospital Pediatric Pain Clinic  
 Roudebush VA Medical Center – Pain Clinic  
 Roudebush VA Medical Center – Substance Use Disorders Program  
 St. Vincent Hospital – Pediatrics

### **Training in State-of-the-Art Research Methods and Statistical Approaches**

Students receive training and supervised experience in state-of-the-art research methods and statistical approaches in clinical health psychology.

Examples of research methods:

Actigraphy (objective assessment of physical activity and sleep)  
 Cardiovascular assessment methods (e.g., blood pressure, ECG, and impedance cardiography)  
 Ecological momentary assessment (EMA)  
 Eye tracking  
 fMRI  
 Heart rate variability biofeedback  
 Integrated treadmill desks  
 Internet interventions  
 Intravenous alcohol administration  
 Olfactometer  
 Oral alcohol administration  
 Quantitative sensory testing (QST) methods (e.g., cold pressor task)  
 Virtual human technology

Examples of advanced statistical approaches:

Bayesian data analysis  
 Meta-analysis  
 R (statistical programming language and software environment)  
 Structural equation modeling

### Health-Related Research Fellowships

Our students have received funding for (a) individual predoctoral fellowships (F31) from NIH ([grants.nih.gov/grants/guide/pa-files/PA-16-309.html](https://grants.nih.gov/grants/guide/pa-files/PA-16-309.html)) and (b) health-related predoctoral fellowships available on campus, including the Indiana CTSI ([www.indianactsi.org/funding/predoc](http://www.indianactsi.org/funding/predoc)), the Indiana University Melvin and Bren Simon Cancer Center ([www.cancer.iu.edu/trbocc/](http://www.cancer.iu.edu/trbocc/)), and the NIAAA-funded, alcohol-focused institutional training grant ([www.medicine.iupui.edu/IARC/training/t32](http://www.medicine.iupui.edu/IARC/training/t32)).

### Active Funded Research Projects in Clinical Health Psychology

#### *Telephone Symptom Management for Advanced Lung Cancer Patients and Caregivers*

8/5/2013-7/31/2018

\$682,225

NIH/National Cancer Institute

Dr. Catherine Mosher is conducting a telephone symptom management intervention trial for symptomatic lung cancer patients and their family caregivers that is funded by the National Cancer Institute. This study examines the impact of telephone-delivered cognitive-behavioral and emotion-focused therapy on symptoms and distress in this population.

Faculty Involvement: Mosher (PI)

#### *Virtual Perspective-Taking to Reduce Race and SES Disparities in Pain Care*

2014-2019

\$1,839,221

NIH/National Institute on Minority Health and Health Disparities

The primary goal of this study is to test a novel perspective-taking intervention aimed at reducing racial and socioeconomic disparities in pain treatment decision-making.

Faculty Involvement: Hirsh (PI)

#### *HIV, Depression, and Cardiovascular Risk*

9/19/2014-8/31/2018

\$2,917,578

NIH/National Heart, Lung, and Blood Institute

The central objective of this set of projects (R01 HL126557) is to determine the associations of depressive disorders and depression treatment with systemic inflammation/coagulation and endothelial function in HIV-infected adults. The specific aims are: (1) to determine the associations of depression and exposure to depression treatment with systemic inflammation and altered coagulation in HIV and (2) to determine the effects of cognitive-behavioral therapy on systemic inflammation, altered coagulation, and endothelial dysfunction in HIV-infected adults with depression. This line of research has the potential to provide HIV clinicians with novel and easily implementable tools to prevent CVD morbidity and mortality in their patients.

Faculty Involvement: Stewart (Multi-PI with Drs. Samir Gupta and Matthew Freiberg)

#### *Modernized Collaborative Care to Reduce the Excess CVD Risk of Depressed Patients (eIMPACT Trial)*

4/21/2015-3/31/2020

\$2,647,352

NIH/National Heart, Lung, and Blood Institute

The goals of this Phase 2 randomized controlled trial (R01 HL122245) are (a) to determine if a modernized depression intervention called eIMPACT reduces the excess CVD risk of depressed primary care patients with CVD risk factors and (b) to identify the mechanisms by which this improvement may occur.

Faculty Involvement: Stewart (PI)

*The Effects of Electronic Cigarette Use on Alcohol Consumption: A Neurocognitive and Behavioral Investigation*

2016-2018

\$83,992

Ruth L. Kirschstein National Research Service Award (F31 AA024682)

National Institute on Alcohol Abuse and Alcoholism

PI: Alexandra Hershberger, M.S.

Faculty Involvement: Cyders (Primary Mentor)

*Perceptions of Symptom Importance and Interference in Metastatic Breast Cancer Patients: Preparation for Intervention Development*

2015-2016

\$50,000

Walther Cancer Foundation

The primary goal of this mixed methods study is to identify physical and psychological symptoms considered most important to metastatic breast cancer patients.

Faculty Involvement: Mosher (PI), Hirsh (Co-I), Rand (Co-I)

*Acceptance and Commitment Therapy for Symptom Interference in Metastatic Breast Cancer Patients*

2016-2019

\$150,000

Walther Cancer Foundation

The primary goal of this study is to examine the feasibility, acceptability, and preliminary efficacy of telephone-based Acceptance and Commitment Therapy (ACT) for reducing symptom interference in metastatic breast cancer (MBC) patients.

Faculty Involvement: Mosher (PI), Hirsh (Co-I)

*Symptom Priorities of African-American Chronic Pain Patients in Primary Care Settings*

2015-2016

\$10,000

IUPUI Department of Psychology

The primary goals of this study are to establish the feasibility/acceptability of a symptom prioritization tool for use among African-American chronic pain patients, assess patient priorities of six cardinal symptoms, and estimate effect sizes of pertinent associations between symptoms, priorities, and functioning.

Faculty Involvement: Rand (PI), Hirsh (Co-I), Stewart (Co-I)

**Core Clinical Health Psychology Faculty**

**Melissa A. Cyders**, Associate Professor, Ph.D., 2009, University of Kentucky. Interests: impulsivity, fMRI, alcohol use, emotions, risk-taking, addictive behaviors.

**John C. Guare**, Clinical Associate Professor and Assistant Director of Clinical Training, Ph.D., 1991, University of Pittsburgh. Interests: health psychology, diabetes, obesity.

**Adam T. Hirsh**, Associate Professor, Ph.D., 2008, University of Florida. Interests: biopsychosocial aspects of pain.

**Catherine E. Mosher**, Associate Professor, Ph.D., 2007, University at Albany, State University of New York. Interests: behavioral oncology.

**Kevin L. Rand**, Associate Professor, Ph.D., 2006, University of Kansas. Interests: psychosocial aspects of cancer, end-of-life issues, hope, optimism, stress and coping.

**Jesse C. Stewart**, Associate Professor, Ph.D., 2003, Ohio University. Interests: cardiovascular disease, diabetes, obesity, inflammation, autonomic function, depressive/anxiety disorders, insomnia, eHealth/ internet interventions, cognitive-behavioral therapy.

**Tamika Zapolski**, Assistant Professor, Ph.D., 2013, University of Kentucky. Interests: substance use among African Americans, sociocultural risk, stress, emotion-based risk and protective processes.

### **Core Clinical Psychiatric Rehabilitation Faculty**

**John H. McGrew**, Professor, Ph.D., 1991, Indiana University. Interests: health psychology, psychiatric rehabilitation, autism.

**Kyle S. Minor**, Assistant Professor, Ph.D., 2012, Louisiana State University. Interests: schizophrenia, schizotypy, early psychosis, disorganized speech, neurocognition, stress, affect.

**Michelle P. Salyers**, Professor and Director, Clinical Psychology Program, Ph.D., 1998, Indiana University-Purdue University Indianapolis (IUPUI). Interests: psychiatric rehabilitation, severe mental illness, recovery, staff burnout, implementation of evidence-based practices.

### **Other Contributors**

Christopher M. Callahan, M.D., Professor of Medicine, Indiana University Center for Aging Research

Daniel O. Clark, Ph.D., Associate Professor of Medicine, Indiana University Center for Aging Research

Mary De Groot, Ph.D., Associate Professor of Medicine, Division of Endocrinology

Matthew S. Freiberg, M.D., MSc, Associate Professor of Cardiovascular Medicine, Vanderbilt University School of Medicine

Samir K. Gupta, M.D., Associate Professor of Medicine, Division of Infectious Diseases

David Haggstrom, M.D., M.A.S., Associate Professor of Medicine, Division of General Internal Medicine

David A. Kareken, Ph.D., ABPP, Professor of Medicine, Department of Neurology

Kurt Kroenke, M.D., Professor of Medicine, Indiana University Center for Health Services and Outcomes Research

Marianne Matthias, Ph.D., Associate Professor of Communication Studies

Gerardo Maupomé, BDS, MSc, DDPH RCS(E), Ph.D., Professor, School of Dentistry

Alan B. McGuire, Ph.D., Scientist Scholar, ACT Center of Indiana

Susan Rawl, Ph.D., FAAN, Professor, Indiana University School of Nursing

Angela Rollins, Ph.D., Assistant Research Professor, ACT Center of Indiana

Fred W. Unverzagt, Ph.D., Professor of Clinical Psychology, Department of Psychiatry

Gregory D. Zimet, Ph.D., Professor of Pediatrics and Clinical Psychology, School of Medicine