



CTBS Science

Center for Translational Behavioral Science

Florida State University College of Medicine

Annual Report

2018 - 2019

Vision

Improving public health and health equity with sustainable team science approaches.

Mission

The mission of the Center for Translational Behavioral Science at Florida State University is to promote public health and health equity using a sustainable team science approach for the development and widespread implementation of behavioral and biobehavioral interventions across the translational spectrum. The Center will rely on a continuous cycle of interaction between basic behavioral and biomedical scientists, translational researchers, treatment providers, and communities to develop interventions reaching diverse and under-served populations in local communities and beyond.

Values

Improving health by improving conditions and behaviors—bench to bedside—that impact health.

Promoting Health Equity Through Team Science

Report prepared by Sara Green, MSW; CTBS Science Program Manager



FLORIDA STATE UNIVERSITY
COLLEGE OF MEDICINE
DEPARTMENT OF BEHAVIORAL SCIENCES AND SOCIAL MEDICINE





12/01/2019

The ultimate goal of the Center for Translational Behavioral Science (CTBScience) is to promote public health and health equity with sustainable team science approaches for the development and widespread implementation of behavioral and biobehavioral interventions across the translational spectrum. As such, CTBScience has developed this report in effort to identify the areas in which we are working to achieve this goal, as well as identifying the efforts made by center faculty, staff, and affiliates during the 2018-2019 reporting year, beginning on November 1, 2018 and ending on October 31, 2109.

As defined in the Florida Board of Governors Strategic Plan, this report includes updates on five measurable objectives: Hire center staff, increase national and international reputation, increase collaboration across multiple disciplines, increase extramural funding, and increase student exposure to translational behavioral research.

The Center has worked diligently to assemble a team of dedicated and ambitious scientists, from multiple disciplines. These faculty members contribute to the Center's mission through their own distinct research program initiatives and through the Center's three structural cores related to Management, Methods, and Technology. The range of disciplines for our faculty team members includes clinical psychology, public health, epidemiology, statistics, and communications. The center is also supported by a team of full-time staff, including a program manager, grants compliance analyst, data analyst, data manager, graduate assistant, as well as multiple grant or institutionally funded part-time research focused positions and student research assistants.

As detailed in the report, the Center has spent the last year developing its research programs and initiatives, research facilities, and internal and external collaborations. We have developed extensive affiliations both within the University and within the community as a whole. A key component of the Center's approach to collaboration involves efforts toward dissemination, publication, proposal submission, and community engagement. The Center is also committing significant effort toward the development of a community advisory board to further enhance community partnerships and promote sustainability, efficacy, and ethical practices.

As Director of CTBScience, it is my duty and privilege to present this report to our collaborators and stakeholders. Throughout the next year, the Center will remain dedicated toward activities to achieve the Center's mission and continue efforts toward pursuing goal achievement related to the measurable outcomes outlined by the Florida Board of Governor's strategic plan.

Go Team Science!

Sylvie Naar, PhD
Distinguished Endowed Professor
Director, CTBScience
Florida State University College of Medicine
Department of Behavioral Sciences and Social Medicine

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CTBScience Annual Report Executive Overview

The ultimate goal of the Center for Translational Behavioral Science (CTBScience) is to promote public health and health equity with sustainable team science approaches for the development and widespread implementation of behavioral and biobehavioral interventions across the translational spectrum. As such, CTBScience has developed this report in effort to identify the areas in which we are working to achieve this goal, as well as identifying the efforts made by center faculty, staff, and affiliates during the 2018-2019 reporting year. As defined in the **Florida Board of Governors Strategic Plan**, the following objectives and measures are the focus of this report. Progress toward these objectives are detailed in the report and is summarized below.

Objective 1: Hire Center Staff

Measure: Staff hired according to budget plan

The center has worked diligently to assemble a team of dedicated and ambitious scientists, from multidiscipline since its inception. In addition to the center director, the center has two associate professors, one assistant professor, and two research faculty members. In addition to the center's full-time faculty, the center partially supports a postdoctoral associate and three courtesy faculty members as part of its Management, Methods, and Technology cores. The range of disciplines for these faculty members includes those from clinical psychology, public health, epidemiology, statistics, and communications. The center is also supported by a program manager, grants compliance analyst, data analyst, and data manager.

The center director and faculty members have utilized their respective startup funds, increased efforts with on campus programs to engage students in research, and utilized funding from awarded projects to ensure that the hiring decisions are conducive to the level of work associated with project completion, and to fit the needs of the center as an independent entity.

The original budget projection totaled:

- \$733,697 in SUS funding for faculty positions
- \$50,209 in C&G funding
- \$49,400 in other support funding

The actual budget allocation totaled:

- \$371,755 in SUS funding; a **\$361,942** in budgeted salary savings
- \$294,450 in C&G funding; a **\$244,241** increase from projected.
- \$49,400 in other support funding

Objective 2: Increase National and International Reputation

Measure: Number of MPI Grants and Co-authored research papers by two or more disciplines in the center

A key component of the center's approach involves efforts toward dissemination. Achieving this objective involves the number of manuscripts, presentations, and posters. As within the report, CTBS faculty have submitted 48 publications, and have presented at 27 domestic and foreign conferences or symposiums.

Adolescent and Emerging Adult Health Equity Program (Sylvie Naar, PhD)

22 publications

4 presentations

Intervention Research Advancing Care Equity (iRACE) (Nicole Ennis, PhD)

6 publications
3 posters / presentations

Sleep, Trauma, and Emotional Processes Program (STEP) (Scott Pickett, PhD)

7 publications
24 posters / presentations

Community Health and Social Epidemiology Program (CHASE) (Tyra Dark, PhD)

8 publications

Integrative Science for Healthy Aging (Julia Sheffler, PhD)

10 publications
1 presentation

Objective 3: Increase Collaboration Across Multiple Disciplines

Measure: Number of internal and external collaborations with other faculty, research and clinical professionals, community agencies, and populations.

Among its research programs and three cores, the center is comprised of researchers from disciplines including biostatistics, communications, epidemiology, nursing, social work, and psychology. In addition to these internal multidisciplinary collaborators, the center has engaged with a wide variety of external research and clinical professionals and community agencies. Of these collaborations, over 50 are individual research and clinical professionals, and more than 20 community agencies.

Objective 4: Increase Extramural Funding

Measure: Grants submitted, and grants awarded

Since the start of center operations, faculty members have achieved a total of 31 funded and submitted proposals. Of these submissions, sponsors included multiple institutes under the National Institutes of Health, the American Heart Association, The National Endowment for the Arts, and various institutional funding opportunities including planning grants and sub awards. Of the 15 funded projects within the center, the total of externally funded support is approximately \$6 million.

Adolescent and Emerging Adult Health Equity Program (Sylvie Naar, PhD) \$5,581,974

4 projects with external funding support
6 proposals submitted

Intervention Research Advancing Care Equity (iRACE) (Nicole Ennis, PhD) \$372,000

1 project with external funding support
3 proposals submitted

Sleep, Trauma, and Emotional Processes Program (STEP) (Scott Pickett, PhD)

3 projects with internal funding support*
7 proposals submitted

Community Health and Social Epidemiology Program (CHASE) (Tyra Dark, PhD) \$17,853

4 projects with external funding support
1 proposal submitted

Integrative Science for Healthy Aging (Julia Sheffler, PhD)

3 projects with internal funding support*
1 proposal submitted

**internally funded projects are not included in the funded support total*

Objective 5: Increase Student Exposure to Translational Behavioral Research

Measure: Three graduate students and one postdoctoral fellow over the 5-year period.

The center's postdoctoral associate, Seyram Butame, PhD, plays an integral role in the Center's research efforts. Dr. Butame currently assists the Center's Methods Core through collaboration with the Core Lead and supervision of Core staff and students. Additionally, he has co-authored 4 manuscripts and is a collaborator on 5 externally funded projects.

The Center also houses the KL2 Program. This program was created as a result of a National Institutes of Health Clinical and Translational Science Award, a partnership between FSU and the University of Florida, and is designed to create a community of postdocs, junior faculty, and mentors who work together to submit excellent K applications and set FSU's junior researchers on a path to independence. In addition to keeping the FSU community informed about the K Scholar Program, this website contains a variety of resources for FSU researchers applying for NIH Research Career Development Awards.

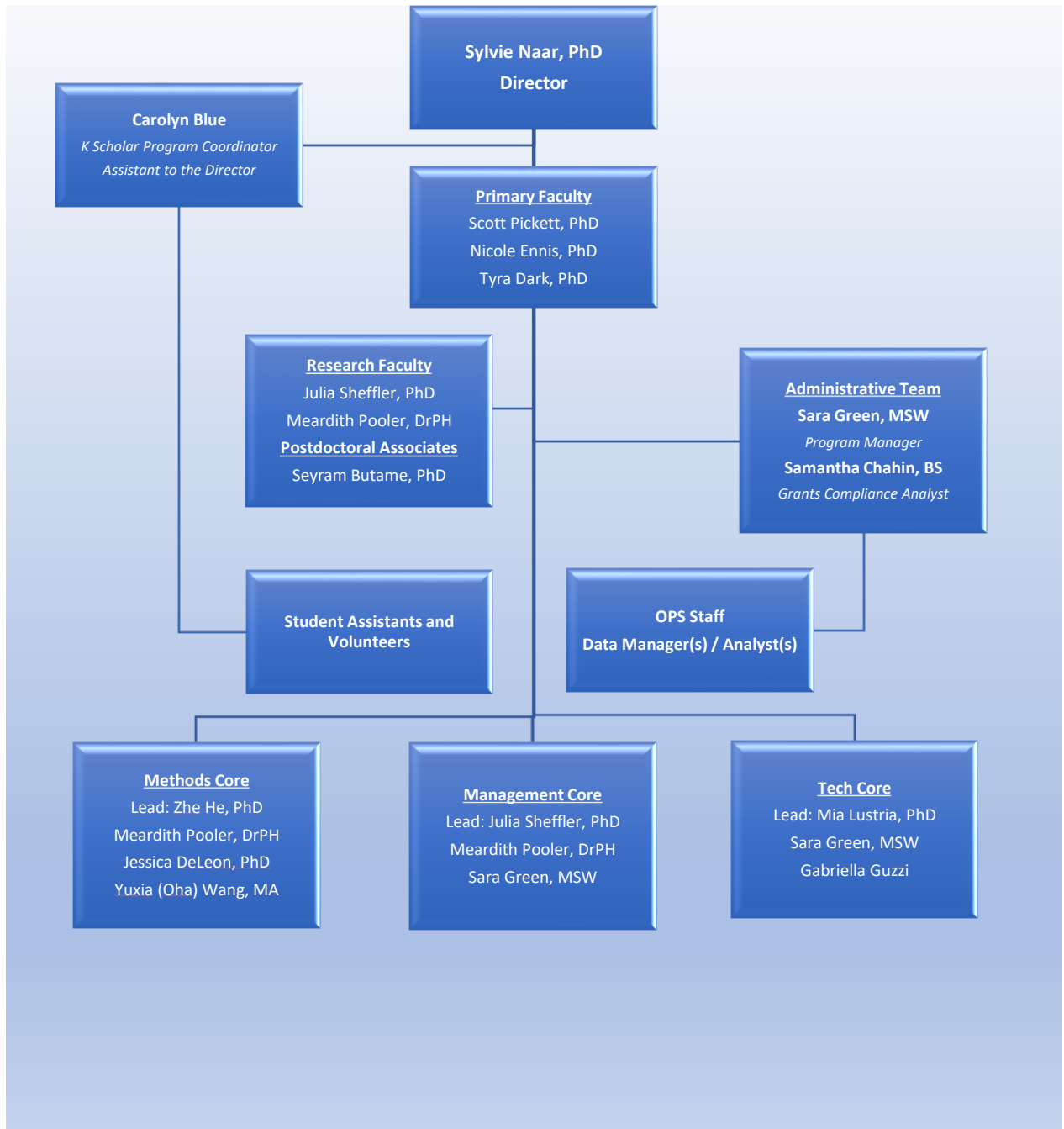
Beyond this, the center has also engaged in a focused effort to incorporate students from various levels and disciplines into a wide variety of translational research projects. Not only has this approach enhanced student exposure, it has also impacted the progression of multiple active clinical translational research studies for each faculty member with ongoing projects. The center currently has 1 dedicated graduate research assistant, 1 graduate level research assistant, 2 federal work study student research assistants, and has worked with over 20 undergraduate students through the University's Undergraduate Research Opportunity (UROP) and Directed Independent Study (DIS) program.

Strategic Planning and Next Steps

The next phase of development for CTBS will focus on continued maintenance and improvement of the existing strategies and initiatives through the utilization of our center's three cores, faculty, and administrative team. With the initial center startup project long underway and near completion, faculty and staff effort intend to focus on the following initiatives:

1. Research faculty and staff will begin incorporating the use of the already acquired pilot study data to propose projects for funding for full scale clinical trials.
2. The center's administrative team, in conjunction with the Management Core, will continue the development of policies, procedures, standards of practice, and organizational development. This will include engagement with both internal and external stakeholders related to enhancing transdisciplinary collaborations, community engagement, establishment of licensed materials and/or training courses to generate secondary revenue.
3. The center will enhance the existing K Scholar Program to engage with junior faculty investigators to enhance the research portfolio of the University and provide guidance and mentorship to young investigators.
4. The center will continue to increase exposure to translational behavioral research among the University's student population through the University's undergraduate and graduate research programs.
5. The center will establish a Community Advisory Group by the end of fiscal year 2019 and work collaboratively toward research and community initiatives focused on implementation research to promote health equity.

Organizational Structure



Research Programs and Center Facilities

CTBScience Research Programs

The center has five established research programs, led by center faculty members, that expands upon the various disciplines of its members, while allowing for transdisciplinary collaborations toward behavioral research and clinical trial integration. Below is a brief overview of each research program. Details related to publications, grant submission and awards, etc., are included in their respective report sections.

Adolescent and Emerging Adult Health Equity Program

Sylvie Naar, PhD

The Adolescent and Emerging Adult Health Equity Program focuses on developing and testing behavioral interventions to promote health equity among adolescents and emerging adults. The program includes several projects across the continuum of translation including early phase trials, clinical trials, effectiveness trials, and implementation trials. Studies have focused on improving health equity with behavioral interventions targeting the management of HIV, obesity, asthma, and diabetes among minority adolescents and young adults.

Integrative Science for Healthy Aging

Julia Sheffler, PhD

The Integrative Science for Healthy Aging Program broadly involves the development and assessment of interventions for mental-health problems and neurocognitive disorders in older adults. Current projects involve the assessment of adverse childhood experiences on health outcomes across the lifespan, implementing an intervention for emotion dysregulation in older age, and assessment of the implementation of dietary interventions and preventions for neurocognitive disorders.

Intervention Research Advancing Care Equity (iRACE)

Nicole Ennis, PhD

The goal of our intervention research is to improve patient care among medically under-served populations through evidence-based behavioral interventions in the context of learning healthcare systems. Guided by a dissemination and implementation science framework, we aim to understand and intervene on factors that influence health outcomes among patients coping with substance misuse, depression, HIV infection and other chronic conditions. We investigate the influence of individual, social, and structural barriers using an interdisciplinary team approach.

Sleep, Trauma, and Emotional Processes Program (STEP)

Scott Pickett, PhD

The STEP (Sleep, Trauma, and Emotional Processes) program examines the influence and interaction of vulnerabilities, such as maladaptive emotion regulation and sleep disruption, on negative mental and physical health outcomes. Primary vulnerabilities of interest are those associated with psychological trauma. Current projects utilize a variety of research designs from basic social and biomedical science to clinical trials.

Community Health and Social Epidemiology (CHASE)

Tyra Dark, PhD

Dr. Tyra Dark created the Community Health and Social Epidemiology (CHASE) program, housed within the Center for Translational Behavioral Science, to investigate the impact of social conditions on community health. Social epidemiology assumes that the distribution of advantages and disadvantages in a society reflects the distribution of health and disease.

As a social epidemiologist, Dr. Dark's research has focused on the unique health care needs and health economics of populations with complex chronic conditions (e.g., cardiometabolic syndrome in older adults and HIV/AIDS in young adults) and comorbid mental illness, and the role of race/ethnicity on delivery of care. The CHASE program focuses on identifying how care is delivered to this population to uncover potential contributors of racial/ethnic disparities that can inform future policy or other cost-effective health care delivery interventions to improve outcomes and reduce observed disparities.

Programs and Initiatives

K Scholar Program

The Center for Translational Behavioral Sciences also houses the University's K Scholar Program. The K Scholar Program is a part of the National Institutes of Health Clinical and Translational Science Award (CTSA), a partnership between FSU and the University of Florida. Under the direction of Sylvie Naar, it is designed to create a community of postdocs, junior faculty, and mentors who work together to submit excellent K applications and set FSU's junior researchers on a path to independence.

Since launching the K Scholar Program in April 2019, there have been 16 K Scholar candidates identified (12 females and 4 males). They each set the goal to submit an application between 10/2019 and 10/2020; 4 candidates submitted in October 2019.

2019 Highlights

- April – K Scholar Program launched with Kickoff Presentation
 - Database of potential applicants generated from attendees
- August – K Scholar Program coordinator hired
 - Collaboration with UF Program Coordinator, Maria Gavidia, to share resources
- October – K applications submitted by four (4) FSU faculty
 - Samantha Goldfarb, COM, BSSM – K01
 - Bradley Gordon, Human Science, K01
 - Lucinda Graven, CoN, - K01
 - Julia Sheffler, COM, BSSM – K23
- October – Three (3) curriculums identified with teaching planned for 2020
 - Team Science
 - Responsible Conduct of Research
 - Clinical Research

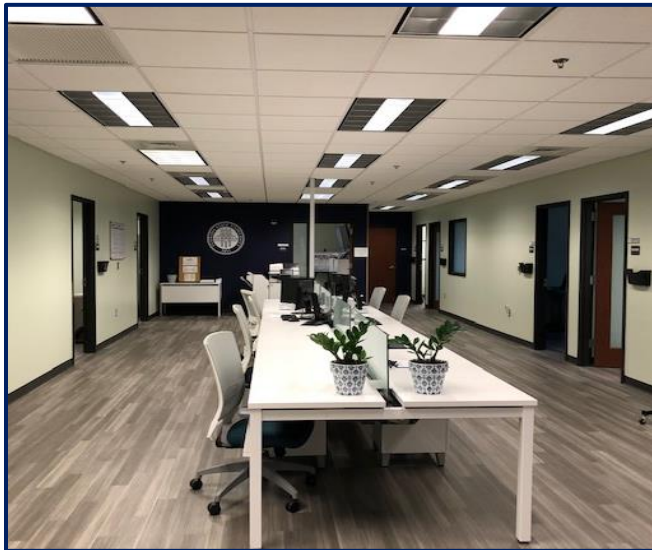
Next Steps

- November – First meeting of K Scholar Program Internal Advisory Committee
- November – Enrollment opens for Team Science Training scheduled for Spring 2020
- December – K Scholar Bootcamp Presentation with Dr. Thomas Pearson, Executive Vice President for Research and Education at the University of Florida

Center Facilities

The Center for Translational Behavioral Science has spent the last calendar year building a state of the art research facility, equipped with 6 faculty offices, a postdoctoral fellow office, 6 administrative and research core staff offices, offices and cubicles for a research coordinator and research assistants, shared cubicle workspace for students and staff working with faculty, 6 data collection rooms with video recording capability, two conference rooms, and a common area including dedicated space for an administrative assistant. The center's facility will also be equipped with a phlebotomy room, including sample preparation space with centrifuge and storage space that includes a freezer for sample storage.

**Before Renovations*



**After Renovations*

Affiliations

In addition to the transdisciplinary collaborations in research and dissemination, the center has established a diverse community of affiliated faculty members, community members, and community agencies. The following affiliated faculty have participated in over 15 different proposal submissions in the 2018-2019 reporting year. Further, these affiliated faculty members contribute effort toward student and community engagement by participating in center strategic and scientific meetings, attending center events, and supporting center initiatives. In addition to FSU faculty, the Center has worked diligently to foster relationships and collaborations with community stakeholders, toward the mission of promoting health equity for underserved populations and enhancing strategic research initiatives to this end.

FSU Affiliated Faculty Members

College of Medicine

Heather Flynn, PhD

*Associate Professor, Vice Chair for Research
Director for the FSU Center for Behavioral Health
Integration
Behavioral Sciences and Social Medicine*

Jeff Harman, PhD

*Professor
Behavioral Sciences and Social Medicine*

Cynthia Vied, PhD

*Research Faculty; Translational Science Laboratory
Biomedical Sciences*

Jessica De Leon, PhD

*Assistant Professor
Family Medicine and Rural Health*

Gregg Stanwood, PhD

*Associate Professor
Biomedical Sciences*

College of Social Work

Carrie Pettus-Davis, PhD

*Association Professor
Founding Director
Institute for Justice Research and Development*

Mike Killian, PhD, MSW

Assistant Professor

Yaacov Petscher, PhD

*Associate Professor
Director
Quantitative Methodology and Innovation Division
Florida Center for Reading Research*

College of Arts and Sciences, Department of Psychology

Greg Hajcak, PhD

*Professor
Director of The Risk for Anxiety and Depression Lab*

Pam Keel, PhD

Professor

College of Nursing

John Lowe, PhD, RN, FAAN

*McKenzie Professor in Health Disparities Research
Founding and current Executive Director of the
Center for Indigenous Nursing Research for Health
Equity (INRHE)*

Graham McDougall, Jr, PhD, RN, FAAN, FGSA

Associate Dean for Research

Eugenia Millender, PhD, RN, MS, PMHNP-BC, CDE

Associate Professor

Frankie Wong, PhD

Professor

College of Human Sciences

Penny Ralston, PhD

*Professor
Dean Emeritus
Director of the Center on Better Health & Life for
Underserved Populations*

Bahram H. Arjmandi, PhD, RDN

*Professor & Director, Center for Advancing Exercise
and Nutrition Research on Aging*

FSU Centers and Institutes

Jamie Quinn, PhD

*Research Faculty
Florida Center for Reading Research*

Cody Diefenthaler

*Manager of Interactive Development
Florida Center for Interactive Media (FCIM)*

Community Advisory Group

“The community advisory group will meet quarterly to represent community needs and give input on strategic planning and study protocols utilizing a community-based participatory research approach.”

To date, the Center has engaged with ten individuals for the community advisory group. Of those identified, potential members include those from community health agencies, clinics, internal and external departments and colleges. It is the goal of the center to establish this group with the collaboration of College of Medicine and other affiliated faculty members, in order to commence quarterly meetings beginning in January of 2020.

George Rust, MD

*Director of the Center for Medicine and Public
Health, Florida State University College of Medicine*

Miaisha Mitchell

*co-founder of the Tallahassee Food Network,
Executive Director of the Greater Frenchtown
Revitalization Council, Childhood Obesity Prevention
Education (COPE) Coalition, member*

Katrina Rolle

*Attorney, President/CEO of the United Way of the Big
Bend*

Claudia Blackburn, MPH, RN, CPM

Health Officer for the Florida Department of Health

Missy Sword Lee

*Program Director, Substance Abuse & Mental Health
at Florida Department of Children and Families*

Dr. Temple Robinson, MD

*Chief Executive Officer at Bond Community Health
Center in Tallahassee*

Dr. Celeste Hart, MD

Endocrinologist at Tallahassee Memorial Healthcare

Arrie M Battle

Executive Director at Mother Care Network, Inc.

Walter Niles

*Office of Minority Health and Health Equity, Florida
Department of Health*

Marcus West

*Community Health and Planning Analyst for the
Florida Department of Health in Leon County*

Additional Community, State, National, and International Engagement

Clinical Research in the Community

Establishing collaborations within the community is a key initiative of the Center's mission. In addition to the Center's work with internal and external research partners, faculty members continue to engage with community agencies, patient and provider stakeholders, and other community focused programs. Projects are currently underway across various communities in the North Florida Region and beyond.

The SOLAR project, led by Dr. Scott Pickett, is a pilot project focused the use of a novel intervention approach to improve the functioning of those affected by Hurricane Michael in the Big Bend region. In collaboration with Whole Child Leon, a state funded agency that assists in providing resources and referrals to underprivileged or underserved children in Leon County and surrounding areas, as well as partners at Kangaroo University in Australia, Dr. Pickett has brought the SOLAR intervention to the United States for its first trial run with those in FSU's community.

Dr. Nicole Ennis has expanded her existing NIH K award to include a clinical site out of Jacksonville, FL, gather patient data related to her HIV clinical trial. The partnership with CAN Community Health will assist Dr. Ennis' project aim of piloting effectiveness of SBIRT-PN versus treatment as usual in HIV primary care clinics to improve substance-use treatment engagement and HIV appointment adherence among HIV adults by recruiting 50 participants from patients attending the care clinic for routine medical appointments.

Dr. Naar and Dr. Pooler have initiated Florida Youth SHINE – Sexual Health Implementation Network for Equity. The Mission of the Florida Youth SHINE initiative is to build a community-based research network for CER/PCOR focused HIV prevention and treatment in adolescents and emerging adults (age 13 – 24) in Florida. Not only do we seek to build a new community of youth HIV-focused stakeholders (patients, providers, researchers, and public health officials from academic, health care, and community-based settings) but we also seek to enhance the capacity and diversity of two existing initiatives, the NIH-funded ATN and OneFlorida. There is a PCORI proposal under review to hold a community convening of providers, public health officials, youth representatives and researchers to develop a community-engaged research strategy.

Community Agency Affiliations

- ❖ Big Bend Cares (Tallahassee, FL)
- ❖ Whole Child Leon (Tallahassee, FL)
- ❖ CAN Community Health (Jacksonville, FL)
- ❖ Florida Department of Health (Tallahassee, FL)
- ❖ Florida Department of Children and Families (Tallahassee, FL)

Management Core

“The Management Core will be responsible for recruitment and retention, data collection, regulatory activities, and the development of protocols and standard operating procedures.”

The Management Core (MC) for the CTBScience provides oversight, management, and coordination of all research and core-related activities. Specifically, the MC is responsible for fiscal management, institutional review processes, data safety monitoring, and community involvement, as well as for recruitment, enrollment, retention, and data management.



The MC also oversees the center's research assistants and facilitates the center's involvement with undergraduate and graduate students at FSU. Although center faculty work independently on research projects, the MC is available to assist in project development and regulatory aspects of research projects. A primary goal of the MC is to promote cohesiveness in the development of new center projects and to provide oversight to existing projects.



Julia Sheffler, PhD
Research Faculty
CTBScience
FSU College of Medicine
Behavioral Sciences and Social
Medicine
Julia.sheffler@med.fsu.edu

Core Personnel

Seyram Butame, PhD; Postdoctoral Associate
Meardith Pooler, DrPH; Assistant in Research
Sara Green, MSW; Program Manager
Samantha Chahin; Grants Compliance Analyst
Samantha Nagy; Data Analyst

Dr. Sheffler is responsible for overseeing the regulatory functions of the center including monitoring the status of required CITI training for all investigators and project personnel and maintaining up to date knowledge of the Florida State University's IRB system and assisting faculty members with IRB protocol submission and approval. In this regard, Dr. Sheffler is assisted by the center's program manager regarding maintaining accurate tracking of regulatory items and producing reports.

Center Space and Lab Development

Construction renovations were fully completed in September 2019. During the renovation process, multiple faculty investigators within the center continued to make progress on the overall development and planning of the center as well as their respective research programs. As such, in addition to leading the entirety of the center layout and design, the Management Core has designed and developed plans and/or proposals to outfit the space with a fully functional phlebotomy lab and two sleep lab spaces with video monitoring capabilities and the option to convert the space to a clinical therapy / participant room. The center also has two conference rooms, both with video conference capability, and one as a convertible community engagement area for the center to host educational and training sessions, and group focused translational interventions with research participants.

Policies & Procedures

In conference with applicable departments within the College of Medicine, the Florida State University Internal Review Board (IRB), the Office of Research, and internal faculty/staff, the center has continued developing policies and procedures related to budget processes and reporting, recruitment, training, development of faculty and staff members, and administrative procedures related to travel, purchasing, human resources, social media, and communications management.

Data Collection and Reporting

Various systems have been developed to capture data related to center activities. Additionally, the center houses two data manager positions, that are intended to assist the Director and other center faculty with pilot project data / dissemination, as well as serve as an in-house data team for funded projects. The Management Core has developed a center registry that can be used by all center and affiliated faculty to recruit potential participants. The Management Core will work with the Methods Core to maintain and distribute this database as needed.

Hiring New Faculty, Staff, and Students

Since inception, the Management Core has worked diligently to grow the center in terms of people and productivity. The center now has six faculty positions, two new administrative positions, two postdoctoral positions, multiple graduate assistants, and numerous undergraduate research assistants.

Publications

Cascade Monitoring in Multidisciplinary Adolescent HIV Care Settings: Protocol for Utilizing Electronic Health Records.

Pennar, A.; Dark, T.; Simpson, K.; Gurung, S.; Cain, D.; Fan, C.; Parsons, JT.; Naar, S.
JMIR Res Protoc 2019;8(5): e11185.

Testing a Motivational Interviewing Implementation Intervention in Adolescent HIV Clinics: Protocol for a Type 3, Hybrid Implementation-Effectiveness Trial

Naar, S.; MacDonell, K.; Chapman, J.; Todd, L.; Gurung, S.; Cain, D.; Dilones, R.; Parsons, JT.
JMIR Res Protoc 2019;8(6): e11200

Adolescent Trials Network for HIV-AIDS Scale It Up Program: Protocol for a Rational and Overview.

Naar, S.; Parson, JT.; Stanton, BF.
JMIR Res Protoc. 2019 Feb 1;8(2): e11204. doi: 10.2196/11204.

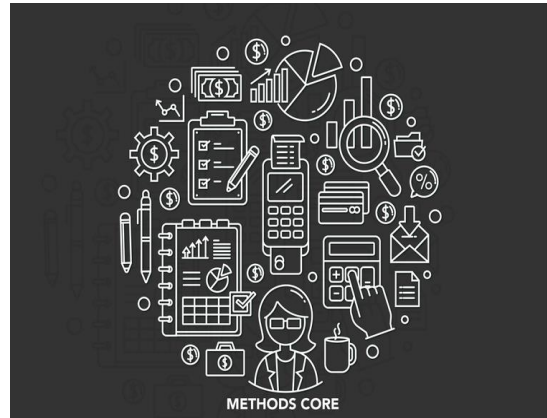
Strategic Planning and Next Steps

The Management Core continues to provide support and resources for center faculty and staff related to development, data collection and reporting, new hires, research project planning and coordination, event planning and management, and other management related functions as needed. The Management Core continues to assist with institutional and community engagement and collaboration, acting as a hub for collaborative efforts between center faculty and external partners, with ongoing planning to further enhance the center's presence among the University's various academic and research entities. Further, the Management Core seeks to establish and maintain effective partnerships with both internal and external entities to ensure compliance with regulatory requirements, enhance structural and procedural capacity to conduct research, and develop policies and procedures toward compliance, development, collaboration, engagement, and leadership.

Methods Core

“The analytics core will be responsible for data management, analysis and manuscript preparation.”

The Methods Core will be responsible for research data management and analysis. We will provide biomedical informatics and big data expertise including machine learning, data mining, natural language processing, and biomedical ontologies/standards. We will also provide support to investigators to develop cohort identification queries over OneFlorida Data Trust, a state-level database with fine-grained clinical data for over 15 million Floridians.



The Methods Core will also collaborate with researchers from the Quantitative Methodology and Innovation Division of FCRR for work related to clinical trials analyses, power calculations, and related methodological applications.



Zhe He, PhD, Core Lead

*Assistant Professor
School of Information
College of Communication and
Information
Florida State University
Zhe.he@cci.fsu.edu*

Core Personnel

Jamie Quinn, PhD; Florida Center for Reading Research (FCRR)
Zachary Monaco, Data Manager
Aiwen Xing, Graduate Assistant
Xiang Tang
Yiqi Xu
Neelufar Payrovnaziri
Lynette Gerido

Ongoing Projects

Data-Driven Clinical Trial Design and Generalizability Assessment

National Institute on Aging (R21), Amazon, Eli Lilly and Company, FSU Council on Research and Creativity
Principal Investigator: Zhe He, Ph.D.

Specific Aims: Clinical studies are essential in evidence-based medicine. However, participant recruitment has long been a major concern. Although ~60% of new all cancer cases occur among older adults, they comprise merely 25% of participants in cancer clinical studies. Unjustified or overly restrictive eligibility criteria are the most important modifiable barriers causing low accrual, early termination, and low generalizability. This in turn can cause the studies to be underpowered and increase the likelihood of adverse drug reactions and toxicity when moved into clinical practice. We are developing data-driven methods and tools to assess the generalizability of clinical studies using the electronic data in clinical trial registries, public patient databases, and clinical data warehouses. This project aims to improve the representation of underserved population subgroups in clinical studies such as older adults with multiple chronic conditions.

Semantics-Powered Data Analytics and Machine Learning

Principal Investigator: Zhe He, Ph.D.

Specific Aims: Various healthcare information systems such as EHRs have integrated well-curated biomedical controlled vocabularies, e.g., the International Classification of Diseases (ICD) and RxNORM, as their vocabulary foundation. With rich medical concepts linked by hierarchical and associative relationships, these vocabularies and ontologies can also be utilized in health data analytics tasks such as natural language processing, data integration, and decision support. Opportunities exist for leveraging semantic methods to enhance these data science efforts. Our research and development effectively use biomedical ontologies and/or semantics methods to address important problems in biomedicine and fundamental problems in natural language processing such as word sense disambiguation, relation extraction, and temporal information extraction. In addition, we also seek to build effective machine learning models to predict health outcomes for patients such as mortality and readmission.

Cohort Discovery Over OneFlorida Data Trust

Principal Investigator: Zhe He, Ph.D.

Specific Aims: The OneFlorida Clinical Data Research Network (CDRN) is a collaborative statewide network that seeks to improve health research capacity and opportunities in the State of Florida through the facilitation of clinical and translation research in communities and health care settings. Its core resource - OneFlorida Data Trust, contains longitudinal and linked patient records of ~15 million Floridians from various sources, including Medicaid/Medicare, cancer registry, vital statistics, and electronic health records (EHR) from its clinical partners. The Data Trust follows the PCORnet Common Data Model (CDM), and contains detailed patient characteristics and clinical variables, including demographics, encounters, diagnoses, procedures, vitals, medications, and labs. We will help FSU investigators define cohort discovery queries over this rich clinical data warehouse to answer critical research questions.

Methods for Translational Behavioral Research (2014 NIH Workshop)

Specific Aims: The National Institutes of Health sponsored a cross-institute, two-day "Workshop on Innovative Study Designs and Methods for Developing, Testing and Implementing Behavioral Interventions to Improve Health" to review, evaluate, and disseminate a selection of innovative designs and analytic strategies for use in behavioral intervention studies. Experts from the behavioral, biostatistical and clinical communities reviewed the utility of new, innovative and potentially more efficient study designs and methods to develop, optimize, test and implement behavioral interventions across the translational targeting multiple behavioral risk factors (e.g., adherence, diet, physical activity, smoking). Presentations and discussions focused mainly on the development and preliminary testing of behavioral interventions on Day 1, with an emphasis on later-stages of development, including testing and implementation of interventions within clinical and community contexts, on Day 2.

Manuscripts

Assessing the Use and Perception of Dietary Supplements Among Obese Patients with National Health and Nutrition Examination Survey.

He Z, Barrett LA, Rizvi RF, Tang X, Payrovnaziri N, and Zhang R.
AMIA 2020 Informatics Summit. (full length paper: 10 pages)

Patient Engagement in Medical Research among Older Adults: Analysis of the Health Information National Trends Survey.

Gerido LH, Tang X, Ernst B, Langford A, and He Z.

Biomedical Word Sense Disambiguation with Bidirectional Long Short-Term Memory and Attention-based Neural Networks.

Zhang C, Biš D, Liu X, and He Z.
BMC Bioinformatics. In press.

ALOHA: Developing an Interactive Graph-based Visualization for Dietary Supplement Knowledge Graph through User-centered Design.

He X, Zhang R, Rizvi R, Vasilakes J, Yang X, Guo Y, He Z, Prosperi M, Huo J, Alpert J, Bian J.
BMC Medical Informatics and Decision Making. 2019; 19 (Suppl 4): 150. PMID: 31391091. PMCID: PMC6686235.

Using Deep Neural Network to Identify Cancer Survivors Living with Post-Traumatic Stress Disorder on Social Media.

Ismail NH, Liu N, Du M, He Z, and Hu X.
The 4th International Workshop on Semantics-Powered Data Mining and Analytics (SEPDA 2019). October 15, 2019. Auckland, New Zealand. CEUR Workshop Proceedings: 2427. pp. 48-52. (full-length paper)

Multivariate Multi-step Deep Learning Time Series Approach in Forecasting Parkinson's Disease Future Severity Progression.

Ismail NH, Du M, Martinez D, and He Z
The 10th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (BCB 2019). Niagara Falls, NY. pp. 383-389. (full-length paper)

Assessing the Validity of a prior Patient-Trial Generalizability Score using Real-world Data from a Large Clinical Data Research Network: A Colorectal Cancer Clinical Trial Case Study.

Li Q†, He Z†, Guo Y†, Zhang H, George J T, Hogan W, Charness N, Bian J
AMIA 2019 Annual Symposium. In press. (†: Co-first authors) (2nd Place Student Paper Award; full-length paper 10 pages)

Enhancing Prediction Models for One-Year Mortality in Patients with Acute Myocardial Infarction and Post Myocardial Infarction Syndrome.

Payrovnaziri SN, Barrett LA, Bis D, Bian J, and He Z.
MEDINFO 2019. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*. 2019 Aug 21; 264:273-277. (full-length paper)

Understanding Patient Information Needs about their Clinical Laboratory Results: A Study of Social Q&A Site.

Zhang Z, He Z, Lu Y, Kou Y, Wu D.
MEDINFO 2019. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*. 2019 Aug 21; 264:1403-1407. (full-length paper)

Analyzing Social Media Data to Understand Consumers' Information Needs on Dietary Supplements.

Rizvi RF, Wang Y, Nguyen T, Vasilakes J, He Z, and Zhang R.
MEDINFO 2019. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*. 2019 Aug 21; 264:323-327. (full-length paper)

Understanding Perceptions and Attitudes in Breast Cancer Discussions on Twitter.

Modave F, Zhao Y, Krieger J, He Z, Guo Y, and Bian J.

MEDINFO 2019. August 26-30, 2019. Lyon, France. Studies in Health Technology and Informatics. 2019 Aug 21; 264:1293-1297. (full-length paper)

Posters and Presentations

Contextualizing Consumer Health Information Seeking

Zhang Z, Wilson C, and He Z.

AMIA 2019 Annual Symposium. In press. (Poster)

Exploring the Discrepancies in Actual and Perceived Benefits of Dietary Supplements Among Obese Patients.

He Z, Barrett LA, Rizvi RF, Payrovnaziri N, and Zhang R.

MEDINFO 2019. August 26-30, 2019. Lyon, France. Studies in Health Technology and Informatics. 2019 Aug 21;264:1474-1475. doi: 10.3233/SHTI190491. PMID: 31438188. (Poster).

Improving Patient Participation in Cancer Clinical Trials: A qualitative analysis of HSRProj & RePORTER

Gerido LH, He Z.

MEDINFO 2019. August 26-30, 2019. Lyon, France. Studies in Health Technology and Informatics. 2019 Aug 21;264:1925-1926. doi: 10.3233/SHTI190716. PMID: 31438410. (Poster).

Identification of Cancer Survivors Living with PTSD on Social Media

Ismail NH, Liu N, Du M, He Z, Hu X

MEDINFO 2019. August 26-30, 2019. Lyon, France. Studies in Health Technology and Informatics. 2019 Aug 21;264:1468-1469. doi: 10.3233/SHTI190488. PMID: 31438185. (Poster).

Making Sense of Clinical Laboratory Results: An Analysis of Questions and Replies in a Social Q&A Community.

Zhang Z, Lu Y, Wilson C, and He Z

MEDINFO 2019. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*. 2019 Aug 21;264:2009-2010. doi: 10.3233/SHTI190759. PMID: 31438453. (Poster).

Funded Support

The Adherence Promotion with Person-centered Technology (APPT) Project: Promoting Adherence to Enhance the Early Detection and Treatment of Cognitive Decline

National Institute of Health, National Institute on Aging; R01AG064529
2019 - 2024

Role: Co-Investigator (PI: Walter Boot)

Posttransplant Health Outcomes in Pediatrics Organ Transplantation

Clinical and Translational Science Institute's (CTSI) Precision Health Initiative Pilot Award
University of Florida CTSI
2019 - 2020

Role: Co-Principle Investigator (MPI: Michael Killian)

Systematic Analysis of Clinical Study Generalizability Assessment Methods with Informatics

National Institutes of Health, National Institute on Aging; R21AG061431
2019 – 2020

Role: Contact Principle Investigator (MPI with Jiang Bian)

Strategic Planning and Next Steps

The Methods Core continues to provide research data management and analytic services to researchers affiliated with the Center for a variety of study types including clinical trials. For example, we can assist research teams when it comes to power analysis during the study design phase. We provide guidance on the development of data collection instruments for dissemination through platforms such as Qualtrics (SAP Software Solutions) and REDCap. Core staff also provide data cleaning guidance to research teams as needed via several analytical software packages including SPSS® (IBM Corporation), SAS® (SAS Institute), and STATA® (StataCorp). Finally, we are developing expertise in qualitative data analysis and the use of such software packages as NVivo® (QSR International).

Because Center staff are part of multi-institution grants and research projects, the Core has ties to several external institutions. These include but are not limited to: The Center for Aids Research, Miami, F.L.; Hunter College's PRIDE Health Research Consortium, New York, N.Y.; University of Alabama at Birmingham, Birmingham, A.L.; University of Florida, Gainesville, F.L., the University of Miami, Miami, F.L.; and Wayne State University, Detroit, M.I. The most recent activities with research teams from these institutions include the cleaning of surveillance and serological data collected in the Dominican Republic and the analysis of clinical intervention data on sleep and obesity. We will work with the Management Core to maintain and distribute the datasets as needed.

A central objective of the Core is to provide biomedical informatics and big data expertise including machine learning, data mining, natural language processing, and biomedical ontologies/controlled vocabularies in electronic health records. To this end, the Core is a part of BERD, the Biostatistics, Epidemiology, and Research Design program, which is a resource of the UF-FSU Clinical and Translational Science Award (CTSA) Program. BERD aims to assist researchers at FSU, identify new data sources and types to help answer questions. The Core also facilitates the use and extraction of data from the OneFlorida Data Trust, a component of the OneFlorida Clinical Research Consortium. The Data Trust manages a compendium of longitudinal electronic health record (EHR) and claims data drawn from a variety of health care institutions across Florida. At present, researchers are using OneFlorida Data for a few different research projects including an effort to describe temporal trends in the HIV continuum of care, and to recruit HIV positive youth into clinical trials, as well as another effort to validate clinical trial generalizability assessment methods funded by an NIA R21 project.

We will work with the Management Core to recruit researchers and students to work on the projects. We will also leverage FSU's Undergraduate Research Opportunity Program to engage undergraduate students in the projects.

Technology Core

“The technology core will be responsible for supporting the technology needs of the center (such as, website and social platforms and other technology solutions), as well as providing technology support for behavioral interventions.”

Advances in information and communication technologies have led to the creation of increasingly innovative and interactive platforms to support the delivery of behavior change interventions. Despite these exciting developments, there is still limited evidence about the efficacy of these approaches and whether the benefits of these applications can trickle down to those who need the most assistance (i.e., the chronically ill, and those who have limited means, education, and access to healthcare services).



The Tech Core is responsible for supporting collaborations in eHealth intervention research by exploring potential partnerships with academic researchers, information technology designers and developers. It will also help identify resources to support the development and evaluation of eHealth interventions including technology to aid in assessment in behavioral trials.



Mia Liza Lustria, PhD, Tech Core Lead
*Professor
School of Information
College of Communication and Information
Florida State University
Mia.Lustria@cci.fsu.edu*

Core Personnel

Sara Green, MSW; *CTBScience Program Manager*
Gabriella Guzzi, *Social Media Manager*

Initiatives

The Tech Core launched the CTBScience website in Summer 2019: <https://www.ctbscience.org>. In Fall 2019, we also launched various web platform pages to increase visibility of the Center:

- Facebook: <https://www.facebook.com/ctbscience/>
- Twitter: <https://twitter.com/CtbScience>
- Instagram: <https://instagram.com/CTBScience>

The Center has also been working with the Florida Center for Interactive Media on several initiatives including the development of marketing assets (e.g. logo, style guide, presentation templates) and the development of prototype materials for a research collaboration with the University of Michigan (see eWrapper project for details).

Ongoing Projects

The Adherence Promotion with Person-Centered Technology (APPT) Project: Promoting Adherence to Enhance the Early Detection and Treatment of Cognitive Decline

National Institutes of Health

2019- 2024

The goal of this proposed project is to develop and evaluate a mobile-based adaptive and tailored support system to improve adherence to home-based longitudinal cognitive assessment among elderly with multiple chronic conditions. The project plans to incorporate mHealth behavior change strategies as part of its approach.

Role: Zhe He and Mia Lustria (Co-Investigators working with a team from the Institute of Successful Longevity)

Data Visualization and Game-Based Approaches for Educating At-Risk Young Adults About Non-Medical Prescription Opioid Use

FSU CCI Research Grant

2018-2019

The overarching goal of this project is to test the efficacy of three types of data visualization with various levels of interactivity (static, interactive and game-based) as potentially efficacious cost-effective and innovative approaches for educating young adults about opioid abuse and increasing their self-perceptions of risk.

Role: Mia Lustria (Co-Investigator working with a team from the School of Communication)

Pending Research Support

Improving Engagement in Self-monitoring of Dietary Intake and Physical Activity Among Overweight/Obese Racial and Ethnic Minority Young Adults

National Institutes of Health

2020-2022

The goal of the project is to investigate how real-time emotional and contextual factors influence receptivity to theoretically grounded engagement strategies drawn from multiple disciplines. The approach will test the feasibility and acceptability of translating and integrating engagement strategies in a mHealth intervention supporting the self-monitoring of dietary intake and physical activity among overweight/obese racial and ethnic minority young adults.

Roles: Sylvie Naar (PI) and Mia Lustria (Co-I) – collaboration with researchers at the University of Michigan

Healthy for Hearts United Plus

National Institutes of Health

2018 - 2023

The goal of the proposed project, “Health for Hearts United Plus” (HHU+), is to adapt and evaluate a church-based intervention to address the linkage of stress-related mental and physical health in African Americans. The project plans to incorporate mHealth strategies as part of its approach.

Role: Mia Lustria Co-Investigator

Strategic Planning and Next Steps

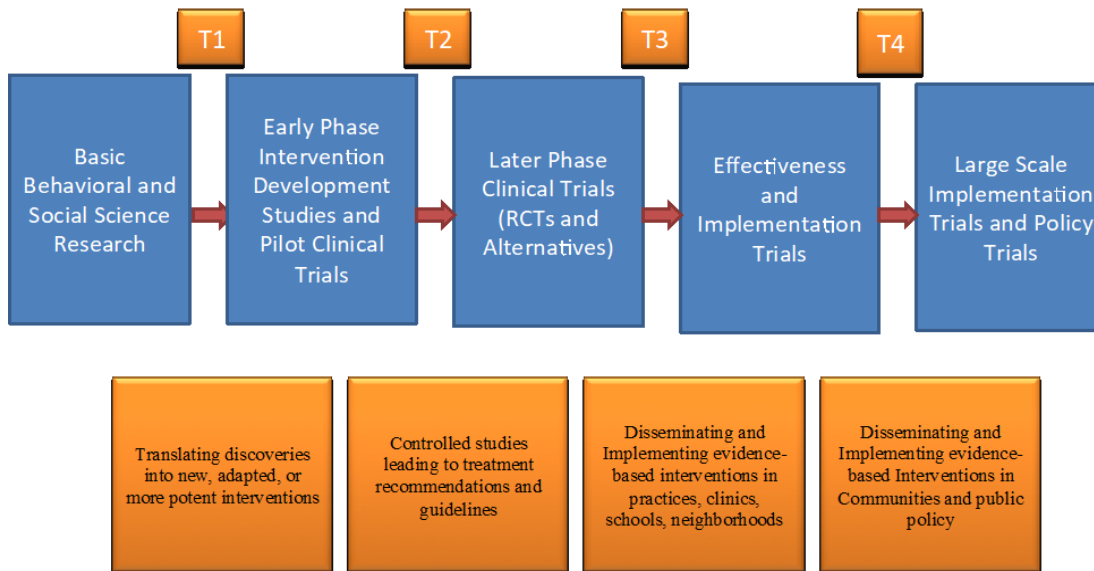
The Tech Core plans to continue to make improvements and updates to the Center website and web platforms. The vision is to create a functional website that can improve visibility of the Center and encourage collaborations and that can serve as a platform for recruiting potential study participants.

The Tech Core has also actively participated in the development of policies and procedures as they relate to the Center as a whole, developing methods for internal and external communications, public inquiries and requests, and virtual platforms for collaboration and information sharing.

The Tech Core also intends to seek out more opportunities for collaboration, particularly relating to the application of eHealth or mHealth technologies in translational behavioral research and interventions. These opportunities will involve collaborations with research projects, grant proposal submissions, and development of interactive media content for various stakeholder and community engagement.

Annual Performance Measures

The ultimate goal of the Center for Translational Behavioral Research is to promote public health and health equity with sustainable team science approaches for the development and widespread implementation of behavioral and biobehavioral interventions across the translational spectrum. The goals below are for the life of the center and extend beyond the 5-year period of performance measures below.



Board of Governors' (BOG) Strategic Plan

1. Conduct behavioral and biobehavioral research with diverse populations across the translational spectrum.
2. Engage and integrate researchers and students from multiple disciplines across the university to develop innovative, transdisciplinary models that guide translational behavioral and biobehavioral research.
3. Submit MPI R01s and publish collaboratively to solidify a platform for center- type grant submissions.
4. Develop initiatives for behavioral and biobehavioral translational research in conjunction with other funded programs (CTSA, PBRN, Pharma).
5. Create feasible, sustainable, and testable structures for community engagement in collaboration with other university centers.
6. Support student-engaged research, including the development of training grants.

Potential Activities for the Center (as indicated by the Board of Governors)

By integrating across multiple disciplines to promote team science, the Center for Translational Behavioral Research will involve the following activities that could not be achieved with a single department or division:

1. *Compete for extramural funding for translational behavioral research across the translational spectrum,*
2. *Contribute to the Clinical and Translational Science Award and Practice-Based Research Network,*
3. *Provide infrastructure and educational opportunities for translational behavioral research across the university including rigorous methodologies for early phase trials, expertise in recruitment and retention of high-risk populations, online research protocols, pragmatic trials utilizing electronic health records, and implementation science,*
4. *Develop focused projects for diseases disproportionately affecting Florida and the Southern United States such as HIV and cardiovascular disease.*
5. *Explore opportunities to integrate behavioral research into pharmaceutical trials.*
6. *Capitalize on NIH initiatives for Personalized Medicine*

Objectives and Measures

Objective 1: Hire Center Staff

Measure: Staff hired according to budget plan

Objective 2: Increase National and International Reputation

Measure: Number of MPI Grants and Co-authored research papers by two or more disciplines in the center

Objective 3: Increase Collaboration Across Multiple Disciplines

Measure: Number of internal and external collaborations with other faculty, research and clinical professionals, community agencies, and populations.

Objective 4: Increase Extramural Funding

Measure: Grants submitted, and grants awarded

Objective 5: Increase Student Exposure to Translational Behavioral Research

Measure: Three graduate students and one postdoctoral fellow over the 5-year period.

Performance Measure Objectives

Objective 1: Hire Center Staff

“The center will recruit diverse faculty from multiple disciplines in innovative translational research to improve health behaviors (Strategic Priority 3.0).” - “The center will ensure operational excellence while maintaining financial integrity... (Strategic Priority 6.0).”

The center has worked diligently to assemble a team of dedicated and ambitious scientists, from multidiscipline since its inception. In addition to the center director, the center has two associate professors, one assistant professor, and two research faculty members. In addition to the center’s full-time faculty, the center supports faculty appointments for three additional faculty members. The range of disciplines for these faculty members includes those from clinical psychology, public health, epidemiology, statistics, and communications.

In addition to faculty, the center houses one postdoctoral researcher, two graduate level data managers, one graduate student, four part time research assistants, two undergraduate work study research assistants, and has mentored a total of 12 undergraduate UROP or DSI students. The center is also supported by a program manager and a grants compliance analyst.

There are some deviations from the originally proposed plan in regard to the number of hired faculty and staff, however, the center director and faculty members have utilized their respective startup funds, increased efforts with on campus programs to engage students in research, and utilized funding from awarded projects to ensure that the hiring decisions are conducive to the level of work associated with project completion, and fit the needs of the center as an independent entity.

For example, the originally proposed budget plan included funding for up to three full time faculty members, in addition to the center director. Additionally, a center coordinator and administrative specialist were intended to be supported by the University. To date, the total staff of the center has reached 16 in total funded positions, supported by both University funds and contracts and grants.

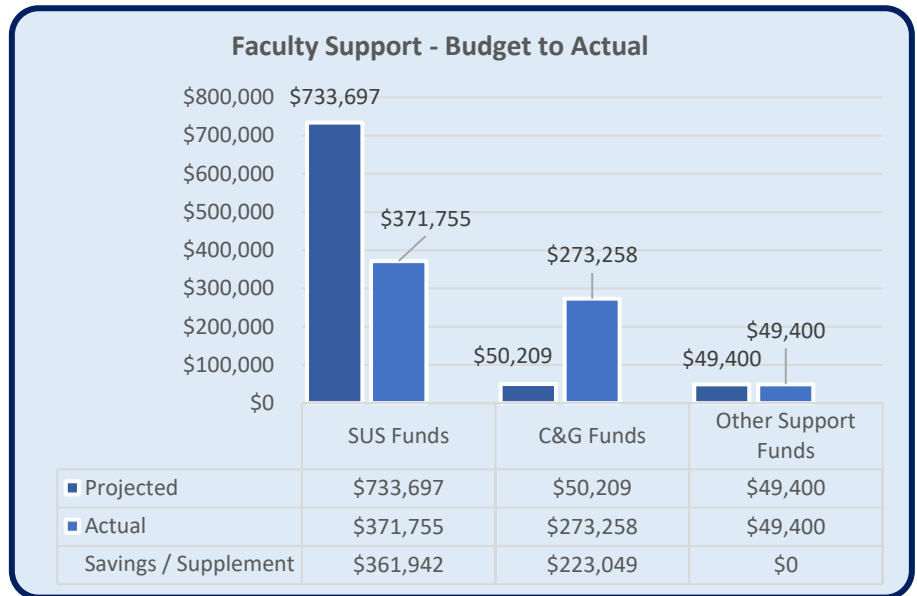
Faculty and Administrative Support: Budget to Actual

The original budget projection for center faculty totaled:

- \$733,697 in SUS funding for faculty positions
- \$50,209 in C&G funding
- \$49,400 in other support funding

The 2019 actual budget allocation totaled:

- \$371,755 in SUS funding; a **\$361,942** in budgeted salary savings
- \$273,258 in C&G funding; a **\$223,049** increase from projected.
- \$49,400 in other support funding



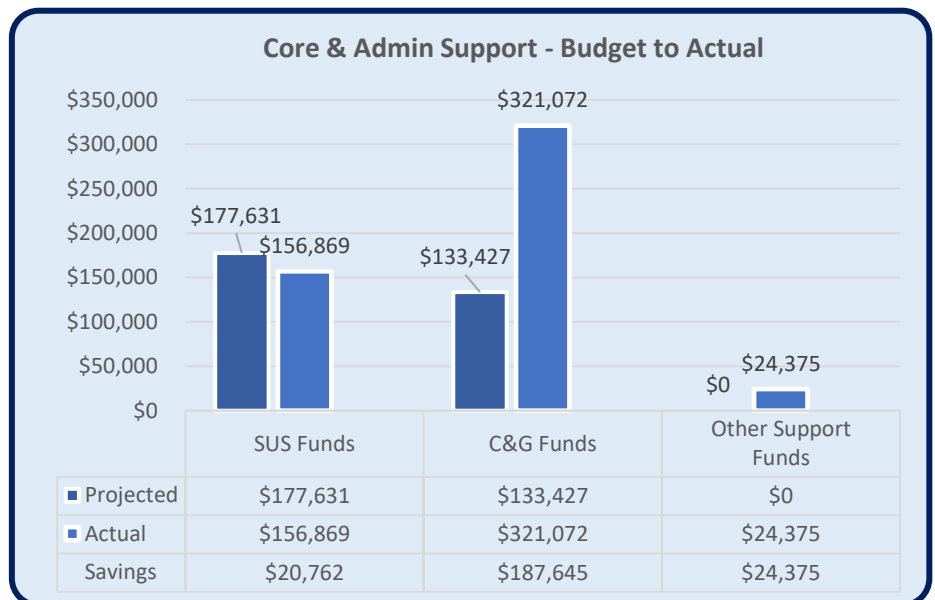
Center Core and Administrative Support: Projected to Actual

The original budget projection for center core and administrative support totaled:

- \$177,631 in SUS funding for core and administrative support positions
- \$133,427 in C&G funding

The 2019 actual budget allocation totaled:

- \$156,869 in SUS funding; **\$20,762** in budgeted salary savings
- \$321,072 in C&G funding; **\$187,645** increase from projected
- \$24,375 in other support funding



Objective 2: Increase National and International Reputation

“The center will foster academic excellence and build the university's international reputation in expanding translational research to the behavioral domain to improve individual and public health. The center will take a transdisciplinary approach to develop new models and methods to solve critical health problems (Strategic Priority 5.0 and 8.0).”

A key component of the center’s approach involves efforts toward dissemination. Achieving this objective involves the number of manuscripts, presentations, and posters. As indicated below, since affiliation with the Center, CTBS faculty have submitted 48 publications, and have presented at 27 domestic and foreign conferences or symposiums.

Adolescent and Emerging Adult Health Equity Program

22 publications

Intervention Research Advancing Care Equity (iRACE)

6 publications

3 posters / presentations

Sleep, Trauma, and Emotional Processes Program (STEP)

7 publications

24 posters / presentations

Community Health and Social Epidemiology Program (CHASE)

8 publications

Integrative Science for Healthy Aging

10 publications

Objective 3: Increase Collaboration Across Multiple Disciplines

The center will bring together researchers from multiple disciplines for a common goal- to improve health by improving behaviors that impact health through team science approaches. The center will promote synergy across these disciplines to develop and test transdisciplinary models across the translational spectrum. These models will not only increase innovation and competitiveness for extramural funding, but, more importantly, it is clear that team science efforts are necessary to solve the complexity of modern health concerns (Spring, Hall, Moller, & Falk- Krzesinski, 2012).

Among its research programs and three cores, the center is comprised of researchers from disciplines including biostatistics, communications, epidemiology, public health, nursing, social work, and psychology. Further, the Center has actively engaged with community stakeholders and agencies to toward the mission of promoting health equity for underserved populations and enhancing strategic research initiatives. As indicated in the Affiliations section of this report, the Center has developed collaborative partnerships with multiple Florida State University faculty members through efforts related to research, publications, community convening and engagement, and proposal submissions. In addition, the center has worked toward developing its Community Advisory Board from a variety of professional and provider communities, to ensure a broad spectrum of stakeholder experiences and oversight in the Center’s strategic planning efforts.

Objective 4: Increase Extramural Funding

The center will focus on extramural funding agencies that support translational behavioral research including the National Institutes of Health, the Centers for Disease Control, the National Science Foundation, and

the Patient-Centered Outcomes Research Institute. “The center will strengthen the public service mission by conducting translational behavioral research focused on reducing health disparities (Strategic Priority 7.0)”

Since the start of center operations, faculty members have achieved a total of 31 funded and submitted proposals. Of these submissions, sponsors included multiple institutes under the National Institutes of Health, the American Heart Association, The National Endowment for the Arts, and various institutional funding opportunities including planning grants and sub awards.

Adolescent and Emerging Adult Health Equity Program

4 projects with funded support
3 proposals pending sponsor review
3 proposals submitted, not funded

Intervention Research Advancing Care Equity (iRACE)

1 project with funded support
1 proposal pending sponsor review
2 proposals submitted, not funded

Sleep, Trauma, and Emotional Processes Program (STEP)

3 projects with funded support
4 proposals pending sponsor review
3 proposals submitted, not funded

Community Health and Social Epidemiology Program (CHASE)

4 projects with funded support
1 proposal pending sponsor review

Integrative Science for Healthy Aging

3 projects with funded support
1 proposal pending sponsor review

Objective 5: Increase Student Exposure to Translational Behavioral Research

“The center will improve undergraduate, graduate and professional education by providing student opportunities to assist in cutting-edge research in the behavioral domain in a team science environment (Strategic Priority 2.0).”

The center’s postdoctoral associate, **Seyram Butame, PhD**, plays an integral role in the Center’s research efforts, as indicated below:

Manuscripts

Support, Depression, Self-Esteem, and Coping Among LGBTQ Adolescents Participating in Hatch Youth.

Wilkerson JM, Schick VR, Romijnders KA, Bauldry J, Butame SA.

Social Health Promot Pract. 2017 May;18(3):358-365.

A qualitative investigation among men who have sex with men on the acceptability of performing a self- or partner anal exam to screen for anal cancer.

Butame SA, Lawler S, Hicks JT, Wilkerson JM, Hwang LY, Baraniuk S, Ross MW, Chiao EY, Nyitray AG

Cancer Causes Control. 2017 Oct;28(10):1157-1166

The prevalence of modern contraceptive use and its associated socio-economic factors in Ghana: evidence from a demographic and health survey of Ghanaian men.

Butame SA.

Public Health. 2019 Mar; 168:128-136.

Determinants of Women's Health Care Utilization, Child Survival and Child Immunization in Ghana: The Role of Empowerment

Butame, SA

The University of Texas School of Public Health, 2017, 150 pages; 10688258.

Funded Support

Preparation to Implement Novel Data to Care Initiatives to End The HIV Epidemic In Florida.

National Institutes of Health, University of Miami (Jayaweera – Principal Investigator)

2019 - 2020

The goal of this project is to analyze health record data to characterize the HIVCC in Florida, to explore opportunities to predict PrEP usage.

Role: Co-Investigator

Beyond this, the center has also engaged in a focused effort to incorporate students from various levels and disciplines into a wide variety of translational research projects. Not only has this approach enhanced student exposure, it has also impacted the progression of multiple active clinical translational research studies for each faculty member with ongoing projects.

Graduate and Undergraduate Student Researchers

Aiwen Xing

Celina Meyer

Emily Capote

Taylor King

Diamond Taylor

Ashley Garcell

Jonathon Mesa

Madison Hedge

Robel Mechal

Juliette Sosa

Morgan Engel

Nicole Rosado

Niah Washington

Elyse Duplantier

Valeria Burchard

Strategic Planning and Next Steps

The second phase of development for CTBS will focus on continued maintenance and improvement of the existing strategies and initiatives through the utilization of our center's three cores and administrative team. With the initial center startup project long underway and near completion, faculty and staff effort intend to focus on the following initiatives:

1. Research faculty and staff will begin incorporating the use of the already acquired pilot study data to propose projects for funding for full scale clinical trials.
2. The center's administrative team, in conjunction with the Management Core, will continue the development of policies, procedures, standards of practice, and organizational development. This will include engagement with both internal and external stakeholders related to enhancing transdisciplinary collaborations, community engagement, establishment of licensed materials and/or training courses to generate secondary revenue toward center sustainability.
3. Continue and expand the Center's effort toward junior faculty and student engagement through the Florida State Undergraduate Research Opportunity Program (UROP), Directed Independent Study (DIS) program. Research programs within the center will also work toward hiring post-doctoral and graduate level community and central lab research assistants.

Adolescent and Emerging Adult Health Equity Program



The Adolescent and Emerging Adult Health Equity Program focuses on developing and testing behavioral interventions to promote health equity among adolescents and emerging adults. The program includes several projects across the continuum of translation including early phase trials, clinical trials, effectiveness trials, and implementation trials. Studies have focused on improving health equity with behavioral interventions targeting the management of HIV, obesity, asthma, and diabetes among minority adolescents and young adults.

Program Personnel



Sylvie Naar, PhD
Program Lead
Distinguished Endowed Professor
Director, CTBScience
Behavioral Sciences & Social Medicine
FSU College of Medicine
Sylvie.naar@med.fsu.edu

Program Personnel

Meardith Pooler, DrPH; Assistant in Research
Seyram Butame, PhD; Post-Doctoral Associate
Sara Green, MSW; Program Manager
Caroline Blue, K Scholar Program Coordinator,
Assistant to the Director
Samantha Nagy, Data Analyst
Zachary Monaco, Data Manager
Aiwen Xing, Graduate Assistant, Biostatistics
Taylor King, Undergraduate Student

External Collaborations

Big Bend Cares
University of Florida
OneFlorida Clinical Research Consortium
Florida A&M University

FSU Collaborators

Florida Center for Interactive Media (FCIM)
Florida Center for Reading Research (FCRR)
College of Communication & Information
College of Social Work
Florida Health Equity Research Institute
Center for Behavioral Health Integration

Initiatives

Early Phase (T1) Transdisciplinary Translational Behavioral Science

This initiative focuses on the translation of basic behavioral and social science into new interventions to improve health. It includes both clinical research and training programs.

Community-Engaged Dissemination and Implementation Research

Community-engaged dissemination and implementation research (CEDI) focuses on research involving dissemination or implementation of evidence-based health interventions within clinical or community-based settings using community-engaged processes or partnerships. It focuses on stakeholder input at each stage of the research process utilizing and addressing bioethical concerns using mixed methods designs and community/stakeholder advisory groups.

Youth HIV Program

This initiative addresses the translation of behavioral interventions for the prevention and treatment of HIV in adolescents and emerging adults, includes T1 translation (the development of new intervention), T2 translation (clinical trials), T3 translation (effectiveness trials) and T4 I translation (implementation trials). The initiative directly addresses the HIV epidemic in Florida with Florida Youth Shine: Sexual Health Implementation Network for Equity, a community-based research network of clinical and community partners participating in translational behavioral research studies.

Ongoing Projects

Adolescent Trials Network for HIV/AIDS Interventions Scale It Up Program

National Institutes of Health; U19
2016 - 2021

Principal Investigator: Dr. Sylvie Naar

Participating Sites:

- | | | |
|--|---|---|
| ▪ University of Miami | ▪ Oregon Health Sciences University | ▪ Children's Hospital of Los Angeles |
| ▪ Wayne State University | ▪ Education, Training, and Research | ▪ University of South Florida |
| ▪ Medical University of South Carolina | ▪ Nova Southeastern | ▪ State University of New York (SUNY Downstate) |
| ▪ University of North Carolina | ▪ St. Jude Children's Research Hospital | ▪ Children's National Medical Center |
| ▪ City University of New York - Hunter College / PRIDE | ▪ Children's Hospital of Philadelphia | ▪ Oregon Social Learning Center |
| ▪ San Diego | | ▪ University of Michigan |
| ▪ University of Alabama at Birmingham | | |

Specific Aims: Scale it Up - specifically focuses on the development, evaluation and implementation of interventions that are effective for improving self-management in at-risk and HIV+ youth. Scale It Up has assembled research teams who will develop, test and bring to practice self-management interventions that positively impact the youth HIV prevention and care cascades. These goals will be achieved by:

1. Designing, conducting and evaluating self-management interventions, involving 500 youth, grounded in the 5-component Self-Management Model and expeditiously moving them into practice.
2. Developing, deploying and disseminating new methods for implementation and implementation analysis with a strong theoretical foundation (EPIS).
3. Engaging with the other funded U19s to identify additional opportunities to advance the fields of implementation science and self-management science.

Improving engagement in self-monitoring of dietary intake and physical activity among overweight/obese racial and ethnic minority young adults

Investigators: *Sylvie Naar, PhD., Mia Liza Lustria, PhD., Inbal Nahum-Shani, PhD.,*

The Center for Translational Behavioral Science (CTBScience) in partnership with Dr. Nahum-Shani at the University of Michigan have been exploring ways to drive engagement with self-monitoring health apps (mHealth) through the use of an engagement wrapper (eWrapper). The goal of the eWrapper is to encourage the use of mHealth apps by enhancing self-monitoring data collection with game design elements and strategies.

Adolescent Medicine Trials Network for HIV/AIDS interventions (ATN) Coordinating Center

National Institutes of Health; University of North Carolina at Chapel Hill

2018 - 2019

Funding for participation in the Executive Committee of the ATN, lead of the Community-Engaged Dissemination and Implementation Research Working Group, and protocol lead of an electronic health records initiative.

Role: Principal Investigator

Comparing the effectiveness of two alcohol+adherence interventions for HIV+ youth

National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism

2013 – 2020 (NCE)

The goal is to conduct a comparative effectiveness trial in real-world clinic settings to test an efficacious intervention designed to reduce alcohol use and improve medication adherence and HIV-related health outcomes among HIV-positive youth.

Role: Principal Investigator

Motivational Enhancement System for Adherence (MESA) in Youth Starting ART

National Institutes of Health; National Institute for Mental Health

2015 - 2020

The goal of this study is to test a brief, 2-session, computer-based motivational intervention to prevent adherence difficulties among youth newly recommended to begin ART.

Role: Co-Investigator

Books, Manuscripts & Publications

Motivational interviewing and CBT. Combining Strategies for Maximum Effectiveness.

Naar S & Safren S.

New York: The Guilford Press. ISBN: 9781462531547. (2017).

Methods and Designs for T1 Translation in Pediatric Psychology.

Naar S, Spring B. (2019).

Journal of Pediatric Psychology, 44:(4), 418-424.

Innovative Study Designs and Methods for Optimizing and Implementing Behavioral Interventions to Improve Health.

Naar S, Czajkowski S, Spring B. (2018).

Health Psychology. Advance online publication.

Promoting Resilience Through Neurocognitive Functioning in Youth Living with HIV: A Phased Approach To Intervention Development.

Pennar, A., Naar, S., Woods, S., Nichols, Outlaw, A., & Ellis, D.A. (2019).

AIDS Care. 30(4), 59-64.

Improving the Youth HIV Prevention and Care Cascades: Innovative Designs in the Adolescent Trials Network for HIV/AIDS Interventions.

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Visualization of future task performance improves naturalistic prospective memory for some younger adults living with HIV disease

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Building Motivation in African American Caregivers of Adolescents With Obesity: Application of Sequential Analysis.

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Posters and Presentations

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Presented at National Conference on Correctional Health Care. October 12-14, 2019. Fort Lauderdale, FL.
Naar S and Bulls M. (2019).

Motivational Interviewing with Adolescents and Young Adults: A Sneak Peek into the Second Edition.

Presented at MINT Forum 2019. September 24, 2019. Tallinn, Estonia.
Naar S, Bulls M, Suarez M. (2019).

Alcohol and Substance Use – Depth Understanding Needed.

Workshop presented at AIDSImpact, July 29, 2019. London, UK.
Des Jarlais D, Anderson J, Naar S. (2019).

NIH K-Awards Kickoff: FSU Office of Research.

Workshop presented April 2019. Tallahassee, FL.
Naar S. (2019)

Strategic Planning and Next Steps

The Adolescent and Emerging Adult Health Equity research program seeks continual growth in early phase translation of basic behavioral and social sciences into new interventions and later phase translation of evidence-based behavioral interventions into public health strategies. The goal is to improve health equity in vulnerable adolescents and young adults with ongoing community engagement. The program plans to develop a community-engaged, public-academic research network focused on sexual health in these developmental periods across the state of Florida and leverage such a network for new projects and proposals. The program will also play a key role in implementation science with young people in the national End the HIV Epidemic Initiative.

Upcoming Initiatives:

Building FLORIDA YOUTH SHINE

Sexual Health Implementation Network for Equity

We propose to build the capacity of a youth-focused network to promote community-engaged sexual health. Not only do we seek to build a new community of youth HIV-focused stakeholders (patients, providers, researchers, and public health officials from academic, health care, and community-based settings) but we also seek to enhance the capacity and diversity of two existing initiatives, the NIH-funded ATN and OneFlorida.

In addition to developing community advisory groups of multiple constituents and conducting needs assessments in multiple settings, we plan to:

- Utilize big data to target regions and identify sporadic users of prevention and treatment services
- Follow a proven bidirectional community engagement model
- Integrate a bioethics framework for stakeholder informed community engaged research.

Bioethics Working Group

Scale It Up: Effectiveness and Implementation Research

The mission of the bioethics working group is to develop evidence-based strategies to address unresolved ethical complexities in the recruitment, consent, enrollment, and retention of minor adolescents and emerging adults in biomedical and behavioral HIV research. Resolving these ethical complexities will advance a broad program of research designed to address evidence gaps in HIV prevention and treatment for minor adolescents and emerging adults.

Policy Working Group

Scale It Up: Effectiveness and Implementation Research

The goal of the Policy Work Group is to identify, evaluate, and address social, economic, environmental and systemic issues that drive barriers to health equity for youth living with or at risk for HIV.

Planned Submissions:

Feasibility of FLEX to Reduce Cardiovascular and Metabolic Risk: Personal Fitness Coaching and Adherence Support for Youth Living with HIV

National Institute of Health; R34

Persons with HIV are more likely to develop cardiovascular disease (CVD), yet there have not been any prevention programs developed for youth living with HIV, a developmental period where risky behaviors peak and healthy habits are formed. This project will test a program that combines personal fitness coaching with adherence counseling to prevent CVD to improve health outcomes in youth.

Translating basic behavioral science into a just-in-time adaptive intervention for engaging youth living with HIV in mHealth

National Institutes of Health; R01

This project proposes to develop integrated and optimized computationally driven, personalized and developmentally appropriate strategies to improve engagement in self-monitoring medication adherence within a prototypic self-management app for youth living with HIV.

Pending Support

Improving engagement in self-monitoring of dietary intake and physical activity among overweight/obese racial and ethnic minority young adults

National Institutes of Health; R21

2019 - 2022

Improving engagement in self-monitoring of dietary intake and physical activity among overweight/obese racial and ethnic minority young adults.

Role: Co-Investigator

i.R.A.C.E. Intervention Research Advancing Care Equity



The goal of our intervention research is to improve patient care among medically under-served populations through evidence-based behavioral interventions in the context of learning healthcare systems. Guided by a dissemination and implementation science framework, we aim to understand and intervene on factors that influence health outcomes among patients coping with substance misuse, depression, HIV infection and other chronic conditions. We investigate the influence of individual, social, and structural barriers using an interdisciplinary team approach.

Collaborations



Nicole Ennis, PhD
Program Lead
nicole.ennis@med.fsu.edu
Associate Professor, Dept. of Behavioral Sciences and Social Medicine, FSU College of Medicine

Program Personnel

Caitlyn Kloss, BA- Research Assistant
Rose Joesil, BA –Research Assistant
Brooke Mallett-UROP Student
Richard Sherman- 1st Year med student

Internal Collaborators

Claudia Blackburn
Sylvie Naar

External Collaborators

Columbia County Health Department Lake City, FL
Leon County Health Department Tallahassee, FL
Sherrilene Classen, PhD- University of Florida
Robert Cook, MD-University of Florida
Jennifer Janelle –University of Florida
Natalie Chichetto, PhD- Vanderbilt University
Zachary Mannes, PhD-Yale University
Erin Ferguson, MS-University of Florida
Nabila El-Bassel-Columbia University

Ongoing Projects

Screening, Brief Intervention, Referral to Treatment with Peer Navigator (SBIRT-PN)

Principal Investigator: *Nicole Ennis, Ph.D.*

National Institute of Drug Abuse, K23

2015 – 2021

This project is funded by the National Institute of Drug Abuse (K23DA039769) and uses the Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM) framework to pilot and evaluate SBIRT-PN in HIV primary care clinic settings. This research is relevant to public health because it addresses the fact that many effective interventions do not translate into meaningful outcomes that improve patient care. Both the National Institute on Drug Abuse (NIDA) and the Office of AIDS Research (OAR) have prioritized research that advances our knowledge of how interventions can be effective in real-world settings, this work contributes to that knowledge base.

Specific Aims: Although screening, brief intervention and referral to treatment (SBIRT) is an evidence-based technique that has been shown in some health care settings to reduce substance use, evidence for efficacy of SBIRT in HIV care settings is limited. HIV+ individuals evidence a high prevalence of

substance use but access to intervention is limited. Substance use increases risk for poor treatment adherence and is a recognized co-factor of HIV transmission. Therefore, there is a need to develop treatment options that are effective for HIV+ individuals. The implementation of these interventions within specialized HIV care settings is ideal as integrated care has been shown to optimize health outcomes. The primary study outcomes are feasibility and acceptability of the SBIRT model. Secondary outcomes include engagement in substance use treatment and reduction in alcohol and drug use. Individual reductions in alcohol and drug use can have significant effects on public health and safety when observed over a large population at risk for substance use problems. With wider dissemination statewide, a relatively low-cost intervention such as SBIRT could offer demonstrated benefits in this population.

HIV/Syphilis Co-infection Project (H.S.C.P.)

Principal Investigator: Nicole Ennis, PhD

Ongoing

The long-range goal of the current project is to evaluate interventions that decrease the burden of syphilis co-infection among men who have sex with men. This work is in partnership with the Leon County Department of Health.

Southern HIV Alcohol Research Center (SHARC) Admin and Research Support Core

Co-Investigator: Nicole Ennis, PhD

2017 – 2022

The Southern HIV Alcohol Research Consortium (SHARC) was established in 2012 as one of five national Consortia for HIV/AIDS and Alcohol Research Translation. The mission of SHARC is to improve health outcomes and reduce HIV transmission in persons affected by alcohol and HIV in Florida. Florida has the highest rate of new HIV infections in the US, a growing proportion of HIV+ persons over age 50, and broad population diversity across age, gender, race/ethnicity, and geography (rural/urban). The next phase of SHARC (2016-2021) will focus on the relationship of alcohol to HIV transmission (including HIV viral suppression) and HIV comorbidities (especially brain function and liver disease).

Manuscripts

Manuscripts

HIV care provider perceptions and approaches to managing unhealthy alcohol use in primary HIV care settings: a qualitative study

NE Chichetto, ZL Mannes, MK Allen, RL Cook, N Ennis

Addiction science & clinical practice 14 (1), 21

Is marijuana use associated with lower inflammation? Results from waves III and IV of the national longitudinal study of adolescent to adult health

EG Ferguson, ZL Mannes, N Ennis

Drug and alcohol dependence 198, 162-167

Non-planning Impulsivity But Not Behavioral Impulsivity is Associated with HIV Medication Non-adherence

EM Dunne, RL Cook, N Ennis

AIDS and Behavior 23 (5), 1297-1305

The association between symptoms of generalized anxiety disorder and appointment adherence, overnight hospitalization, and emergency department/urgent care visits among adults ...

ZL Mannes, LE Hearn, Z Zhou, JW Janelle, RL Cook, N Ennis

Journal of behavioral medicine 42 (2), 330-341

The prevalence and patterns of substance use by birth cohort among HIV-positive adults in Florida

ZL Mannes, VE Bryant, LE Burrell, H Lu, EG Ferguson, Z Zhou, RL Cook, N Ennis.
Aging & mental health 23 (4), 515-523

Value of perceived support on depressive symptoms and hazardous drinking among underserved HIV+ adults 50 and older

N Ennis, V Bryant, Z Mannes
Psychology, health & medicine 24 (3), 355-361

Posters and Presentations

Impulsivity and Linkage to Care Among Substance Users in St. Petersburg Russia.

Poster presented at the Collaborative Perspectives on Addiction Annual Meeting, Providence, RI.
Ennis, N., Cheng, D., Blokhina, E., Raj, A., Walley, A. Y., Sisson, E., Bendiks, S., Palfai, T., Dunne, E., PhD, Cook, R., Krupitsky, E., Samet, J. (2019).

Depression and Prescription Opioid Misuse among People Living with HIV: The Moderating Role of Impulsivity.

Poster presented at the Collaborative Perspectives on Addiction Annual Meeting, Providence, RI.
Dunne, E., Mannes, Z., Zhou, Z., Cook, R., & Ennis, N (2019).

A qualitative examination of patient narrative use among women diagnosed with early-stage breast cancer.

Paper presented at the American Psychosocial Oncology Society 16th Annual Meeting, Atlanta, GA.
Hearn, L., Young, M. E., Pereira, D., Daily, K., Perlstein, W., Tiwary, K., & Ennis, N. (2019).

Strategic Planning and Next Steps

Our program is currently working to engage CAN Community Health in Jacksonville, FL to create an academic-community partnership that leverages their community resources and our academic resources to develop best practices to improve the continuum of care for those living with HIV/AIDS.

We are also expanding our collaboration with the Leon County Health Department by working as part of the HIV/Syphilis Co-inflection team to develop timely interventions to reduce disease transmission.

Finally, we are planning to develop the infrastructure needed to conduct studies on the therapeutic benefits of medical marijuana for patients coping with chronic/life-limiting illnesses.

Pending Support

Medical Marijuana Use and Driving Performance: A Test of Psychomotor Function in Adults 50 and Older

National Institutes of Health; R21
2020 – 2022

The long-range goal of this work is to improve our understanding of the consequences of medical marijuana use in later life. A study that examines older adults' pre-exposure to medical marijuana and systematically tracks medical marijuana initiation, dosage, and psychomotor functioning is needed. Thus, the current study will test medical marijuana use as the exposure variable in adults age 50 and older and simulated driving performance (i.e. errors in response time, attention, and executive functioning tasks that predict on-road performance) as the primary outcome. Medical marijuana use is increasing among adults 50 and older. Both the National Institute on Drug Abuse (NIDA) and the National Institute on Aging (NIA) have identified the need to understand how habitual use of medical marijuana affects psychomotor functioning in real world tasks such as driving. The current proposal will address this question by examining medical marijuana use in the context of driving performance among adults 50 and older.

Role: Principal Investigator

STEP

Sleep Trauma and Emotional Processing



The STEP (Sleep, Trauma, and Emotional Processes) program, led by Dr. Scott M. Pickett, examines the influence and interaction of vulnerabilities, such as maladaptive emotion regulation and sleep disruption, on negative mental and physical health outcomes. Primary vulnerabilities of interest are those associated with psychological trauma. Current projects utilize a variety of research designs from basic social and biomedical science to clinical trials.

Collaborations



Scott Pickett, PhD
Associate Professor
CTBScience
College of Medicine
Department of Behavioral
Sciences & Social Medicine
Florida State University
Scott.pickett@med.fsu.edu

External Collaborators:

Andrea Kozak, PhD; Oakland University

Students:

Ashley Garcell
Jonathon Mesa
Madison Hedge
Diamond Taylor
Robel Mechal
Juliette Sosa
Morgan Engel
Nicole Rosado

Program Personnel:

Samantha Nagy, Project Coordinator
Daniel Gildner, Data Analyst

FSU Collaborators:

Gregg Stanwood, PhD; FSU Biomedical Sciences
Angelina Sutin, PhD; FSU
Therese Van Lith, PhD; FSU
Marcia Mardis, PhD; FSU

Ongoing Projects

Project SOLAR

In collaboration with Whole Child Leon, Pediatric Behavioral Health Integration Program, we are implementing the Skills for Life Adjustment and Resiliency (SOLAR) program a community-based intervention, delivered by non-mental health community members, to reduce mental health symptoms and build resiliency and well-being in a hurricane affected community.

Project M-STER

To assess trauma-related outcomes among hurricane affected communities, we are conducting an online, cross-sectional survey study.

Project BioSleep

In a pilot feasibility study, we are examining the relationships between short sleep duration, stress, traumatic stress and biobehavioral markers of stress, metabolic, and immune functioning.

Funded Support

Examination of Habitual Sleep and Neuroendocrine Functioning

Oakland University; Center for Biomedical Research, Oakland University

2018 – 2020

A pilot study examining the relationship between habitual sleep duration and metabolic biomarkers.

Role: Principal Investigator

OUWB Medical Student Longitudinal Activity-Stress-Sleep Tracking Wellness Initiative – LASTing Wellness

Oakland University William Beaumont School of Medicine; Department of Biomedical Sciences Award

2018 – 2020

A research study examining the relationships between physical activity, habitual sleep, and self-report measures of emotion regulation and emotional outcomes among medical students.

Role: Co-Investigator (Principal Investigator: Kara Sawarynski)

Examination of Habitual Sleep Trajectories across the First Two Years of College: Relation to Weight Gain Risk Behaviors and Outcomes

National Institutes of Health; National Heart, Lung, Blood Institute Academic Research Enhancement Award (Parent R15)

2016 - 2020

A longitudinal study examining sleep trajectories and obesity risk outcomes among college students in the first two years of college.

Role: Co-Investigator (Principal Investigator: Andrea Kozak)

Manuscripts

Biobehavioral utility of mindfulness-based art therapy: Neurobiological underpinnings and mental health impacts.

Beerse, M. E., Van Lith, T., Pickett, S. M., & Stanwood, G. D. (in press).

Experimental Biology and Medicine.

Project STARLIT: Protocol of a longitudinal study of habitual sleep trajectories, weight gain, and obesity risk behaviors in college students.

Kozak, A. T., Pickett, S. M., Jarrett, N. L., Markarian, S., Lahar, K., & Goldstick, J. (in press).

BMC Public Health.

Impulse control difficulties and hostility towards women as predictors of relationship violence perpetration in an undergraduate male sample.

*Gildner, D. J., Kirwan, M., Pickett, S. M., & Parkhill, M. R. (in press).

Journal of Interpersonal Violence.

Emotion regulation moderates the relationships between alcohol consumption and the perpetration of sexual aggression.

*Kirwan, M., Lanni, D.J., Warnke, A. S., Parkhill, M.R., & Pickett, S.M. (2019).

Violence Against Women, 25(9), 1053-1073.

Emotion regulation as a mediator between sleep quality and interpersonal aggression.

*Kirwan, M., Svenson, D. W., Pickett, S. M., & Parkhill, M. R. (2019).
Personality and Individual Differences, 148, 32-37.

Morningness-eveningness and social anxiety symptoms: The influence of depression symptoms on the indirect effect through punishment sensitivity and experiential avoidance.

*Markarian, S. M., Gildner, D. J., Pickett, S. M., & Warnke, A. S. (2019).
Chronobiology International, 36(2), 214-224.

The examination of behavior inhibition system sensitivity, experiential avoidance, and sex in relation to post-traumatic stress symptom severity: Comparison of a moderated versus mediated model.

*Warnke, A. S., Nagy, S. M., Pickett, S. M., Jarrett, N. L., & Hunsanger, J. (2018).
Personality and Individual Differences, 132, 60-65.

Posters and Presentations

A Model of Posttraumatic Stress Symptoms on Binge Eating through Emotion Regulation Difficulties and Emotional Eating in Women.

Poster to be presented at the 53rd annual meeting of the Association for Behavioral and Cognitive Therapies, Atlanta, Georgia.

Echeverri, B., Pickett, S. M., & Gildner, D. J. (2019, November).

The Role of False Positive PTEs on Vicarious Trauma: Is Merely Learning About Trauma Sufficient for Criterion A?

Poster to be presented at the 53rd annual meeting of the Association for Behavioral and Cognitive Therapies, Atlanta, Georgia.

Gildner, D. J., Pickett, S. M., & Echeverri, B. (2019, November).

Difficulties in Emotion Regulation Mediate the Relationship Between Sleep Disturbance and a Measure of Depression, Anxiety, and Stress.

Poster to be presented at the Association for Behavioral and Cognitive Therapies Annual Convention, Atlanta, GA.

Nagy, S.M. & Pickett, S. M. (2019, November).

Predicting Emotion Regulation Difficulties using a 3-Factor Model of the Pittsburgh Sleep Quality Index.

Poster to be presented at the Association for Behavioral and Cognitive Therapies Annual Convention, Atlanta, GA.

Nagy, S.M. & Pickett, S. M. (2019, November).

The Role of Social Media Engagement and Peritraumatic Symptomology During Police Interactions on PTSD Symptomology.

Poster to be presented at the International Society for Traumatic Stress Studies Annual Meeting, Boston, MA.

Gildner, D. J., Ray, T. N., Markarian, S. A., Ibrionke, O., Kris, E., Pickett, S. M., Parkhill, M. R., & Burgess-Proctor, A. K. (2019, November).

Burnout or Moral Injury? Examining PTSD Symptom Severity and Emotion Regulation Difficulties in Health Care Providers.

Poster to be presented at the International Society for Traumatic Stress Studies Annual Meeting, Boston, MA.

Nagy, S.M., Pickett, S. M. (2019, November).

Tonic immobility in response to interactions with police in the United States.

Poster to be presented at the International Society for Traumatic Stress Studies Annual Meeting, Boston, MA.

Ray, T. N., Gildner, D. J., Ibrionke, O., Kris, E., Parkhill, M. R., Pickett, S. M., & Burgess-Proctor, A. K. (2019, November).

Race Moderates the Relation between Tonic Immobility during Police Interactions and Fear of Future Police Interactions.

Symposium: *Stress and Emotion in Developmental, Sociocultural, and Occupational Contexts: Risk for Adverse Outcomes (Chair)*. Paper to be presented at *Emotions 2019: The 7th International Conference on Emotions, Well-being, and Health*, Tilburg, Netherlands.

Pickett, S. M., Ray, T. N., Gildner, D. J., Parkhill, M. R., & Burgess-Proctor, A. K. (2019, October).

The Indirect Effect of Sleep Quality on Emotional Exhaustion through Emotion Regulation Difficulties and Perceived Stress in a Sample of U.S. Medical Students.

Poster to be presented at the 33rd Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX. Jarrett, N. L., Yamane, D. E., Gildner, D. J., & Pickett, S. M. (June 2019).

A Moderated Mediation Model of Experiential Avoidance, Specific Social Fears, Sleep Quality, and Sex. Poster to be presented at the 33rd Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX.

Lahar, K. I., Markarian, S. A., & Pickett, S. M. (2019, June).

Project Tech: The Impact of Technology Usage on Sleep in College Students.

Poster to be presented at the 33rd Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX. Lahar, K. I., & Pickett, S. M. (June 2019).

Social Fear and Avoidance in Morning-Types and Evening-Types: A Model of Sleep Quality, Safety Behaviors and Discounting Positive Events.

Poster to be presented at the 33rd Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX. Markarian, S. A., & Pickett, S. M. (June 2019).

What More Can You Do? Exploring Ways Healthcare Providers Can Help Sexual Assault Survivors Overcome Trauma.

Paper to be presented at ResilienceCon 2019, Nashville, TN.

Taylor, E., Jainagaraj, G., Ray, T. N., Pickett, S. M., & Parkhill, M. R. (2019, April).

Emotion Regulation Mediates the Relationship Between Anxiety and Aggression.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC. Chesure, A., Parkhill, M. R., Pickett, S. M., & Svenson, D. W. (2018, November).

Sleep Disruption and Emotion Regulation Moderating the Relationship between Childhood Trauma and Emotional Eating.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC. Echeverri, B., Pickett, S. M., Parkhill, M. R., & Kozak, A. T. (November 2018).

Building a Model to Predict Sexual Assault Victimization of Undergraduate Women.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC. Kirwan, M., Nagy, S. M., & Pickett, S. M. (2018, November).

Emotion Regulation Mediates the Relationship Between Sleep Quality and Both Relationship Violence and Sexual Assault Perpetration.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC. Kirwan, M., Svenson, D. W., Pickett, S. M., & Parkhill, M. R. (2018, November).

Somatic Pre-Sleep Arousal and Poor Sleep Quality Indirectly Predict the Relationship between Relationship Violence Victimization, Depression, Anxiety, and Stress Symptoms.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC. Lahar, K. I., Mongene, N. G., Svenson, D. W., Pickett, S. M., & Parkhill, M. R. (2018, November).

Adversarial Sex Beliefs Moderates the Relationship between Motivations for Sex and Sexual Assault Perpetration.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC. Lanni, D. J., Gildner, D. J., Mongene, N. G., Kirwan, M., Parkhill, M. R., & Pickett, S. M. (2018, November).

The Relationship Between Childhood Sexual Abuse and Physical Health Symptoms is Mediated by Anxiety and Stress but not Depression.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC. Mongene, N. G., Lanni, D. J., Schmidt, M. B., Parkhill, M. R., & Pickett, S. M. (2018, November).

Heteronormative Attitudes and Hypergender Ideology Predict Violence Perpetration in LGBT Relationships.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC.
Mongene, N. G., Ray, T. N., Parkhill, M. R., Duong, T., Pickett, S. M., & Burgess Proctor, A. K. (2018, November).

The Relationship Between Mindfulness, Emotion Regulation, and PTSD-related Sleep Disturbance.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC.
Nagy, S. M., Mitchell Kirwan, M., Kari I. Lahar, K. I., & Pickett, S. M. (2018, November).

Why won't you help? Examining the effects of sex & victimization on bystander intervention behaviors.

Poster presented at the International Society for Traumatic Stress Studies 34th Annual Meeting, Washington, DC.
Taylor, E., Ray, T. N., Parkhill, M. R., Lanni, D. J., Duong, T., Pickett, S. M., & Burgess-Proctor, A. K. (2018, November).

Mediated Moderation in the Relationship Between Morningness-Eveningness and the Avoidance of Social Situations: The Role of Emotion Regulation Difficulties and Wake Time.

Poster presented at the Association for Behavioral and Cognitive Therapies 52nd Annual Meeting, Washington, DC.
Markarian, S. A., Gildner, D. J., Taylor, S. E., & Pickett, S. M. (2018, November).

Strategic Planning and Next Steps

The STEP program has hired a Program Coordinator and a Research Assistant to help with the management of data collection efforts. The implementation and evaluation of the SOLAR program has been a priority; however, future research regarding SOLAR will be focused on creating a model of sustainability for future implementations of the program. A second priority will be to seek external funding to continue to examine the relationships between short sleep, sleep disruption, stress, and associated negative physical and mental health outcomes.

Pending Research Support

Submission to National Endowment for the Arts

The proposed study will examine the biobehavioral utility of a mindfulness-based art therapy intervention to reduce self-reported stress and associated biomarkers in college students.

Role: Co-Investigator

American Academy of Sleep Medicine; Letter of Intent

The proposed study will examine the specific impact of the implementation of SOLAR on sleep health in hurricane affected communities.

Role: Co-Investigator

American Heart Association; Letter of Intent

The proposed study will be implemented in two phases; Phase 1 will be a population science research study assessing cardiometabolic risk in a sample of high poverty, underserved participants and Phase 2 will be a clinical translational science research study implementing and evaluating an evidence-based mindfulness-based intervention to reduce stress/attenuate the impact of stress on cardiometabolic risk in a subsample of the participants from Phase 1.

Role: Co-Investigator

Institute for Museum and Library Sciences; Letter of Intent

The proposed study will recruit Librarians as community coaches to implement the Skills for Life Adjustment and Resiliency (SOLAR) program, a community-based intervention to reduce mental health symptoms and build resiliency and well-being in a hurricane affected community.

Role: Co-Investigator

CHASE Community Health and Social Epidemiology Program



Dr. Tyra Dark created the Community Health and Social Epidemiology (CHASE) program, housed within the Center for Translational Behavioral Science, to investigate the impact of social conditions on community health. Social epidemiology assumes that the distribution of advantages and disadvantages in a society reflects the distribution of health and disease. As a social epidemiologist, Dr. Dark's research has focused on the unique health care needs and health economics of populations with complex chronic conditions (e.g., cardiometabolic syndrome in older adults and HIV/AIDS in young adults) and comorbid mental illness, and the role of race/ethnicity on delivery of care. The CHASE program focuses on identifying how care is delivered to this population to uncover potential contributors of racial/ethnic disparities that can inform future policy or other cost-effective health care delivery interventions to improve outcomes and reduce observed disparities.

Collaborations



Tyra Dark, PhD
Assistant Professor
CTBScience
Behavioral Sciences and Social
Medicine
FSU College of Medicine
Tyra.Dark@med.fsu.edu

Program Personnel:
Community Research Assistant

Concepts

Positive Deviance Model:

The "Positive Deviance" approach seeks to identify factors that enable some members of the community (the "positive deviants") to find better solutions to pervasive problems than their neighbors who have access to the same resources? With the goal of creating healthier, more equitable communities, CHASE embraces the positive deviance approach to identify and characterize groups that have more successful disease management, better health outcomes and related health care expenditures despite having higher risk profiles.

Health Services Research Focus:

Cost-effective behavioral treatments exist for pervasive risk factors; however, many of these treatments are not readily accessible to populations in most need. Intensive behavioral treatments and an

evaluation of the cost effectiveness of these treatments are needed to prevent adverse health outcomes and progression to more expensive treatments or hospitalization.

Resource Distribution:

To facilitate the impact of this work directly into the community, future CHASE endeavors will facilitate community-based conversations which will inform interventions aimed at promoting successful disease management and healthcare delivery to vulnerable populations with co-morbid chronic conditions thus lowering overall healthcare expenditures. The CHASE program seeks to identify community health concerns.

Ongoing Projects

Adolescent Medicine Trials Network for HIV/AIDS Interventions (ATN) Coordinating Center – Modeling National Institutes of Health/University of North Carolina Subcontract
2019–2020

The Modeling Core utilizes a detailed health policy model of HIV in adolescents and young adults, using a novel approach to microsimulation modeling of HIV disease progression, patterns of care, and treatment outcomes among youth living with HIV in the US.

Role: Principal Investigator

Scale It Up: Cascade Monitoring

National Institute of Child Health and Human Development (PI: S Naar)

2016-2021

The purpose of this project is to examine the trends in treatment cascades in order to guide the new protocol development and to facilitate community engagement.

Role: Co-Investigator

Evaluation of Florida’s Medicaid Family Planning Waiver

Florida Agency for Healthcare Administration (PI: J Harman)

2016-2018

The purpose of this project is to assess the impact of Florida’s Medicaid 1115 Family Planning waiver on access to family planning services, child spacing intervals, unintended pregnancies, and Medicaid costs.

Role: Co-Investigator

Evaluation of Florida’s Managed Medical Assistance (MMA) Program Demonstration

Florida Agency for Healthcare Administration (PI: J Harman)

2016-2019

The purpose of this project is complete an independent assessment of the MMA program. The goal of the evaluation projects is to provide an unbiased program evaluation that describes and analyzes recipient, service and program characteristics.

Role: Co-Investigator

Manuscripts & Presentations

Manuscripts

Electronic Health Records (EHR) to Measure Treatment Cascade Improvements in Hybrid Implementation Trials in HIV-Infected Youth. *Under Review*

Dark, T, Simpson, K, Surung, S, Pennar, A, Chew, M, Naar, S. Using *AIDS Care*.

Racial disparities in healthcare utilization among individuals with cardiometabolic risk factors and co-morbid anxiety disorder. Under Review

Dark T, Rust G, Harman JS.
Psychiatric Services.

Cascade Monitoring in Multidisciplinary Adolescent HIV Care Settings: Protocol for Utilizing Electronic Health Records (2019).

Pennar, A., Dark, T., Simpson, K.N., Gurung, S., Cain, D., Fan, C., Parsons, J.T., Naar, S.
JMIR Res Protoc; 8(5): e11185.

Racial disparities in healthcare utilization among individuals with cardiometabolic risk factors and co-morbid anxiety disorder. Under review

Dark, T., Rust, G., Harman, J.S.
Psychiatric Services.

Sociodemographic influences of emergency department care for anxiety disorders. Journal of Behavioral Health Services & Research (2018).

Dark, T., Rust, G., Flynn, H., Kinsell, H. Harman, J.S.

Epidemiology of emergency department visits for anxiety in the United States: 2009-2011.

Dark, T., Flynn, H., Rust, G., Kinsell, H., Harman, J.S.
Psychiatric Services, 68(3), 2017, pp 238-244.

Estimating the out-of-pocket cost of adults with anxiety.

Tucker, K., Dark, T. (corresponding author), Harman, J.S.
Journal of Anxiety Disorders (2018).

Racial disparities in healthcare utilization among individuals with cardiometabolic risk factors and co-morbid anxiety disorder. Under review

Dark, T., Rust, G., Harman, J.S.
Journal of Health Care for the Poor and Underserved.

Strategic Planning and Next Steps

The CHASE program is planning next steps related to continuing community research and engagement, furthering contract and grant funding, and adding support positions. The program will hire a part-time community research assistant to assist with community focused research initiatives, as well as a central lab research assistant, and two or more Direct Independent Study (DIS) students.

Upcoming Projects

Influence of Social Determinants on cognitive and cardiovascular outcomes among populations with comorbid Cardiometabolic Syndrome (CMetS) and anxiety project.

African Americans are more likely to live in areas where social determinants have negative consequences on health and as a result are disproportionately vulnerable to both cardiometabolic syndrome (CMetS) and mental health disorders. Successful disease management strategies must be implemented to mitigate these disparities, and optimal treatment must address aspects of both CMetS and mental health disorders. For African American patients who often have limited access to medical care and culturally appropriate mental health services, a comorbid mental health condition can further exacerbate chronic conditions and widen racial disparities in health outcomes. CMetS and anxiety both confer a significant public health challenge, yet little is known about the progression of CMetS risk factors in individuals suffering from anxiety, and even less is known about the role of social determinants in this progression. Integrated care approaches that address the unique challenges and problems of people with both anxiety and CMetS in a culturally relevant manner will likely reduce

adverse health outcomes and increase effective disease management. The long-term goal of this research is to better understand how social determinants contribute to the progression of CMetS indicators and cognitive function for individuals also suffering from anxiety.

Future Funding Opportunities

K01 Mentored Research Scientist Development Award Planned 2020 submission

Overall Research Question: Is there a difference in response to the intervention (Young Men's Health Project and Cascade Monitoring) for subgroups of patients with mental health issues and does this translate into cost effectiveness?

Implications: This research will bring a distinct, yet relevant perspective to this area of HIV prevention and treatment by assessing costs associated with specific health related social needs of youth with mental health indicators and addressing whether these needs are met during the delivery of health services.

Pending Support

Influence of Social Determinants on cognitive and cardiovascular outcomes among populations with comorbid Cardiometabolic Syndrome (CMetS) and anxiety

National Institutes of Health, R21

2020 – 2022

This study will examine this complex relation by investigating the influence of social determinants on CMetS risk factor measures and cognition among individuals with comorbid anxiety disorder and CMetS. Further, this study will assess the feasibility of a community-based study to further elucidate the mechanisms by which social determinants contribute to cognitive impairment and CMetS disease management (Subsequent R01 submission).

Role: Principal Investigator

Integrative Science for Healthy Aging



The Integrative Science for Healthy Aging Program broadly involves the development and assessment of interventions for mental-health problems and neurocognitive disorders in older adults. Current projects involve the assessment of adverse childhood experiences on health outcomes across the lifespan, implementing an intervention for emotion dysregulation in older age, and assessment of the implementation of dietary interventions and preventions for neurocognitive disorders.

Collaborations



Julia Sheffler, PhD

Program Lead

Julia.Sheffler@med.fsu.edu

Center Coordinator & Management Core Lead, CTBScience

Research Faculty

Dept. of Behavioral Sciences and Social Medicine

FSU College of Medicine

External Collaborators:

Patrice Bullock, MSN, FNP-C

Community Practitioner

Yenisel Cruz-Almeida, MSPH, PhD

University of Florida

Dimitris N. Kiosses, Ph.D.

Weill Cornell Medicine

FSU Collaborators:

Greg Hajcak, PhD

Bahram Arjmandi, PhD

Cynthia Vied PhD

Jamie Quinn, PhD

Paul Katz, MD, CMD

Natalie Sachs-Ericsson, PhD

Neda Akhavan, Ph.D.

Dawn Carr, Ph.D

Miles Taylor, Ph.D.

Research Assistants:

Celina Meyer

Emily Capote

Diamond Taylor

Niah Washington

Elyse Duplantier

Valeria Burchard

Taylor King

Ongoing Projects

Early phase feasibility trial: Examining the effects of diet on genetic and psychosocial risks for Alzheimer's disease.

University of Florida Clinical Translational Science Award

2019 - 2020

This is an early phase trial to test the feasibility of implementing a ketogenic diet adherence program using CBT principles in order to enhance cognitive performance in older adults at high risk for Alzheimer's disease. The project is in the proof of concept phase on the translational spectrum. We will be assessing the feasibility, acceptability, and preliminary effects of Implementing a ketogenic dietary Intervention for older adults at risk for developing Alzheimer's disease. We are using a team science approach to develop and refine the intervention for future clinical trials. We are using comprehensive

assessment techniques, including comprehensive neuropsychological testing, EEG, fMRI, and physical health assessments to measure the effects of the diet on all aspects of functioning. Participants complete comprehensive neuropsychological testing, EEGs, and provide saliva samples for genetic sequencing for high risk genes. Using this information participants with mild cognitive impairment and an APOE 4 allele will be selected to complete the 6-week ketogenic diet adherence program.

Role: Co-Investigator

Is it possible to bolster resilience by increasing emotional regulation in later life? Examining the neural correlates of emotion regulation and resiliency among older adults.

Florida State University, Institute for Successful Longevity

2018 – 2019

This project aims to examine neural correlates of emotion regulation using EEG. The study involves assessing a problem-focused intervention (PATH) to improve emotion regulation in older adults, and then use EEG and the NIH Toolbox to assess pre- and post- intervention changes.

Specific Aims:

- 1) Examine the relationship between emotion regulation and resilience by conducting a survey of older adults
- 2) use electroencephalogram (EEG) to examine the neural correlates of emotion regulation in a subset of these older adults, and determine if these neural correlates can differentiate participants who report being low, moderate, and high on self-report measures of emotion regulation and resilience
- 3) test an intervention program designed to enhance emotion regulation in older adults
- 4) determine if emotion regulation skill training leads to an increase in resiliency in older adults (and for which older adults the intervention is most successful)
- 5) determine if self-reported changes in emotion regulation skills (after intervention) are reflected in the EEG measures of the neural correlates of emotion regulation.

Role: Co-Investigator

EEG P300 Amplitude and Latency in Relation to Risk for Alzheimer’s Disease and the Impact of a Ketogenic Diet.

Florida State University, Institute for Successful Longevity

2018 – 2019

The purpose of this project is to add EEG assessment of the P300 to the “**Early phase feasibility trial: Examining the effects of diet on genetic and psychosocial risks for Alzheimer’s disease**” project. This study will allow us to examine relationships between neuropsychological functioning, genetic risk for Alzheimer’s, and performance on multiple EEG assessments.

Role: Principal Investigator

Resilience through adversity: Examining the long-term impacts of adverse childhood experiences (ACEs) on health and well-being across the life-span

Principal Investigator: Julia Sheffler, Ph.D.

Specific Aims: Our program involves multiple ongoing projects that examine the long-term adverse impacts of ACEs on health and psychological functioning across the life course. For example, Celina Meyer, a research assistant in the lab was recently awarded the IDEA Grant for her project examining the interactions between early household chaos and ACEs on later emotional and cognitive regulation strategies. We are interested in understanding ACEs as a form of significant early stress, which disrupts key areas of neuro-immune and emotional development leading to lasting changes in psychosocial

functioning. Our goal is to identify resiliency factors that may be useful for interventions in adults and older adults exposed to ACEs.

Manuscripts and Presentations

Feasibility of home-based neurologic music therapy for behavioral and psychological symptoms of dementia.

Holden, S., Sheffler, J., Stewart, R., Thompson, S., Persson, J., Finseth, T., Kluger, B.
Journal of Music Therapy. (2019).

Adverse childhood experiences and coping strategies: identifying pathways to resiliency in adulthood.

Sheffler, J. L., Piazza, J. R., Quinn, J. M., Sachs-Ericsson, N. J., & Stanley, I. H.
Anxiety, Stress, & Coping, 1-16. (2019).

Features of US Primary Care Physicians and Their Practices Associated with Advance Care Planning Conversations: Analysis of a National Survey.

Nowels, D., Nowels, M., Sheffler, J., Kunihiro, S., & Lum, H.
Journal of the American Board of Family Medicine. (2019).

The Mental Health Effects of ACEs.

Sheffler, J., Stanley, I., Sachs-Ericsson, N.
In Asmundson, G.J.G. & Afifi, T.O. (Eds.) Adverse Childhood Experiences (ACEs): Using Evidence to Advance Research, Practice, Policy and Prevention, Elsevier. (2019).

Age, daily stress processes, and allostatic load: A longitudinal study.

Piazza, J., Stawski, R., & Sheffler, J.
Journal of Aging and Health, 0898264318788493. (2018).

Putamen volume differences among older adults: depression status, melancholia, and age.

Sachs-Ericsson, N. J., Hajcak, G., Sheffler, J. L., Stanley, I. H., Selby, E. A., Potter, G. G., & Steffens, D. C.
Journal of geriatric psychiatry and neurology, 31(1), 39-49. (2018).

Cognitive Reappraisal and the Association between Depressive Symptoms and Social Support among Older Adults

Sachs-Ericsson, N., Carr, D., Sheffler, J., Preston, T., Kiosses, D., & Hajcak, G. (Revise & Resubmit).

A longitudinal analysis of the relationships between depression, fatigue, and pain: The influence of a collaborative care intervention.

Sheffler, J., Schmiede, S., Sussman, J., & Bekelman, D. (Under Review).

Metabolism as a mediator between early stress and health across the lifespan.

Sheffler, J., (In preparation).

Adverse Childhood Experiences and late-life outcomes: the mediating role of adult stress.

Sheffler, J., Piazza, J., Quinn, J., Meyer, C., & Capote, E. (In preparation).

Strategic Planning and Next Steps

In the coming year, the primary goal of the program is to receive NIH funding to increase the scale and reach of the current projects. Dr. Sheffler has submitted an NIA funded K23 award to expand the existing ketogenic diet adherence program, as well as working toward an NIH R21 submission to examine an emotion regulation group intervention for middle-aged and older adults with high stress and related inflammation. The program currently has a full laboratory of students who are engaging in program research, assisting in Dr. Hajcak's EEG laboratory, and working at the center as a whole. Four of these students are involved in the UROP program, and two students are paid researcher assistants. The program will work to continue funding at least one part-time research assistant in the coming year. Further, the program plans to boost recruitment of minority populations in research through community

outreach and both internal collaborations at FSU and external community partnerships. At this stage, the Integrative Science for Healthy Aging Program is growing at an exciting pace, and we hope to continue our growth through NIH and internally funded grants.

Pending Support

Early Phase Translational Behavioral Research in Aging: Examining Outcomes Associated with a Ketogenic Diet Adherence Program for Individuals at Increased Risk for Alzheimer's Disease

National Institutes of Health, National Institute on Aging; K23

2020 – 2025

The goal of this project is to expand upon the currently funded feasibility trials in order to fully pilot test the effectiveness of the ketogenic diet adherence program for older adults at risk for Alzheimer's disease. This is a 5-year project that involves additional training of the PI.

Role: Principal Investigator

Stress-related changes in mitochondrial DNA function as a pathway to late-life depression and cognitive impairment in Black and Latinx older adults

Alzheimer's Association by way of University of Texas Health Science Center, San Antonio

2020 – 2023

The purpose of the proposed project is to investigate the relationship between stress and mtDNA, and the relationship between mtDNA and late-life depression and cognitive functioning. As co-investigator, Dr. Sheffler will provide input on the implementation of the study methods, participant recruitment across the three-year project, assessment of participants, and collection and shipment of plasma samples for mtDNA analysis at Dr. Puga's primary institution. Dr. Sheffler will train research assistants to help manage the minor daily operations of the project but will oversee all research activity associated with the project that occurs in Florida. Dr. Sheffler will also assist in analyzing the data and write-up of the study results for publication.

Role: Co-Principal Investigator

Acknowledgements

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-

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- ❖ **Janis James**
Grants Manager I
 - ❖ **Marcy Friedle**
Subcontract Contract Officer III
-

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- ❖ **Heather Cave**
Director
 - ❖ **Susan Walker**
Program Coordinator
-

Florida State University College of Medicine

- ❖ **John Fogarty, MD**
Dean
- ❖ **Jeffrey Joyce, PhD**
Senior Associate Dean, Research & Graduate Programs
- ❖ **Les Beitsch, PhD, JD**
Department Chair, Behavioral Sciences and Social Medicine
- ❖ **Georgia Arnold**
Program Manager, Behavioral Sciences and Social Medicine
- ❖ **Jacob Echols**
Assistant Director, Finance & Administration
- ❖ **Calleen Roper**
Assistant Director, Finance & Administration
- ❖ **Travis Lampinen**
Grants Analyst, Finance & Administration
- ❖ **Eric Shannon**
Accounting Representative, Finance & Administration
- ❖ **Ellen Potts**
Assistant Director, Research & Graduate Programs
- ❖ **Jason Gibson**
Grants Analyst, Research & Graduate Programs
- ❖ **Jessie Gray**
Grants Analyst, Research & Graduate Programs
- ❖ **Shelly Herman**
Grants Analyst, Research & Graduate Programs