

2020-2021

**CHARLES LAFITTE FOUNDATION
PROGRAM IN PSYCHOLOGICAL &
NEUROSCIENCE RESEARCH AT
DUKE UNIVERSITY**

IMPACT REPORT



PSYCHOLOGY &
NEUROSCIENCE



A NOTE FROM OUR CHAIR

JUNE 30, 2021

The ongoing pandemic continues to challenge our society's collective physical and mental health, financial well-being, and even our sense of community. At Duke we've seen how our students have to bear those challenges as they balance the normal difficulties of courses and research while simultaneously dealing with pandemic-induced instability. Their perseverance and resilience has been inspiring.

Support from the Charles Lafitte Program in Psychological Research has been critical for providing some sense of normalcy during uncertain times. Our students have been able to attend virtual conferences, collect research data via online surveys, and participate in summer programs with a cohort of peers spread out around the country. Moreover, our special call for research grants dedicated to understanding COVID's effects on mental health and behavior provided an opportunity for our students to direct their intellectual energy toward solutions for this and future pandemics – as always, doing research that matters.

On behalf of all of our students, staff, and faculty, I want to express my deep gratitude to the Charles Lafitte Foundation. Their investment in our department is really an investment in its people, one that will pay off over the coming years and decades as Duke students and faculty emerge from the pandemic even wiser and more resilient.

Scott Huettel, Chair

Department of Psychology and Neuroscience

UNDERGRADUATE OPPORTUNITIES

Due to COVID-19-related restrictions, undergraduate travel awards were not available during the 2020-2021 academic year. In place of these opportunities, the department established awards for students to attend *Guided Virtual Conferences* and *Faculty-Sponsored Virtual Conferences*.



- **Guided Virtual Conferences** provided a unique opportunity for P&N undergraduate students to remotely attend national conferences. To make virtual conferences more accessible to undergraduates, the department offered a faculty guide for each of a series of national conferences. Faculty guides included lists of key events for Duke undergrads to attend and hosted post-conference Zoom discussions with the undergraduate attendants. Depending on the conference, additional opportunities were available including Zoom meetings with key speakers and Slack Channel interactions. A list of all Duke-affiliated talks and posters were provided to students for each conference allowing undergraduates the opportunity to understand and explore research specific to Duke University.
- **Faculty Sponsored Virtual Conferences** allowed P&N undergraduate students to apply to attend a conference of their choosing with sponsorship approval from a department faculty mentor.

UNDERGRADUATE AWARDS

Guided Virtual Conferences

- **64 applicants**
- **Majors:** Psychology, Neuroscience, Computer Science, Political Science, Global Health, Chemistry, English, Biology, Philosophy, Mathematics, Evolutionary Anthropology
- **Conferences:** Psychonomic Society / Society for Neuroeconomics / Society for Personality and Social Psychology / Society for Research in Child Development / Cognitive Neuroscience Society / Association for Psychological Science

Small Grants

- **17 applicants**
- **Majors:** Psychology, Neuroscience, Education, Religion

URS Grants

- **16 applicants**
- **Majors:** Psychology, Neuroscience, Program II

Faculty-Sponsored Virtual Conferences

- **4 applicants**
- **Majors:** Psychology, Neuroscience
- **Conferences:** Society for Neuroscience / Society of Southeastern Social Psychologists

STUDENT GROWTH & EXPERIENCE

"Though data collection for our senior theses was interrupted by Covid-19, Lafitte funds enabled us to continue our work remotely from home-offices across the country."

- Carolyn Bell, '20

"At this virtual conference, I presented my poster and I learned how to communicate research findings in an understandable way."

- Sonia He, '22

"One of my biggest [conference] takeaway was the flash talk on bio behavioral influences of environmental stress. I was exposed to new experimental methods that are very applicable to the questions that I'm interested in addressing."

- Marytha Tan, '23

"One advantage of the virtual communication platform used was that everyone at the conference was as clueless as I was initially when it came to navigating the various tools for communication, which made for great icebreakers for conversations."

- Chavez Cheong, '24



"I realized that many of the most recent findings in the field are, at their core, further refinements upon the foundational ideas, such as prospect theory and studying the neurological implications of behavior via fMRI. This was an inspiring moment because it made me realize that decision science was a much more accessible field than I had made it out to be."

- Pranav Athimuthu, '23

July 2021: graduates of the PhD in Psychology program celebrate the completion of their dissertations.

RESEARCH THAT MEETS THE TIMES

During the 2020-2021 academic year, the COVID-19 pandemic changed the way lab research was conducted. Though adapting was difficult, the changes also provided an opportunity for the department to pivot and meet the needs of the times. By redirecting funds previously designated to now-prohibited travel, the department was able to continue fostering innovative research: a special call was issued to support research specifically related to COVID-19. Psychological topics related to the pandemic could include: public health messaging, misinformation, loneliness, resilience, stigma, remote learning, and many more.

“We are Duke. We are a strong community; we care about each other; we’re clever and hardworking and innovative; and we’ll get through this and come out stronger on the other side.”

- Vincent E. Price, Duke University President

Similarly, during the social and political climate that followed the brutal murder of George Floyd, the department issued a special call to support graduate and post-doctoral projects related to psychological research related to identity, diversity, inclusion, equity, and thriving.

GRADUATE AWARDS

COVID-19 RESEARCH

- 10 recipients

IDENTITY, DIVERSITY, INCLUSION, EQUITY, THRIVING

- 12 recipients

GENERAL RESEARCH

- 23 recipients

VIRTUAL CONFERENCES

- 15 applicants
- **Conferences:** Mind & Life /
Contemplative Research / Society for
Research in Child Development /
International Society for
Developmental Psychobiology /
Association for Behavioral and
Cognitive Therapies / NeuroEconomics
/ Association for Research in
Otolaryngology / International Society
for Traumatic Stress Studies / UK
Closer Longitudinal Conference / MQ
Mental Health Science Summit / Curran
& Bauer Introduction to Longitudinal
Structural Equation Modeling /
American Psychological Association
Annual Meeting / Society for
Personality and Social Psychology



COVID-19 RELATED RESEARCH

Graduate Award Recipients Special Call for Psychological Research Related to COVID-19

Graduate Grant Award sponsored by the Charles Lafitte Foundation
Program for Research in Psychology & Neuroscience



Special Call for Psychological Research Related to COVID-19 Award Recipients & Project Titles

Adjusting to the COVID-19 outbreak in the United States: The role of personality and situational factors on the maintenance of habitual behavior

FERDANDA ANDRADE

Affective States and Information Seeking During the COVID-19 Pandemic

ALLIE SINCLAIR

Social connection while distancing: Testing a digital, mindfulness-based intervention for promoting adaptive social engagement and mental health during the COVID

KIBBY MCMAHON

A Formative Study on Stress, Family Functioning, and Caregiving in the Context of COVID-19

JUSTIN RASMUSSEN

Understanding Data visualizations and Motivated Reasoning During the COVID-19 Pandemic

BRENDA YANG

Does increased Frequency and Vividness of Dreams During Times of Global Distress Predict Future Psychological Concerns?

ANNA SMITH

A Formative Study on Stress, Family Functioning, and Caregiving in the Context of COVID-19

SAVANNAH JOHNSON

Understanding Data visualizations and Motivated Reasoning During the COVID-19 Pandemic

WILLIAM CROZIER

Intervening on social media use to address loneliness and social comparison during COVID-19

SAVANNAH ERWIN

Examining Risk Factors for Intimate Partner Violence During COVID-19

JACQUELINE TRUMBULL

Right-Wing Authoritarianism as a Predictor of COVID-19 Hoax Beliefs and Helping Behaviors in Response to COVID-19

MATT STANLEY

Intolerance of uncertainty, appraisals, coping, and anxiety during COVID19

RACHAEL WRIGHT

"The funding was offered at the ideal time, enabling us to conduct research on this important topic during the early stage of the pandemic. Our study sought to investigate information seeking during a period of high environmental uncertainty."

- Allie Sinclair, PhD, '21

ADJUSTING TO COVID-19 DISRUPTIONS

THE ROLE OF SELF-CONTROL AND HABITS IN PERCEIVED BEHAVIOR STABILITY

Graduate student Fernanda Andrade wanted to study what types of lifestyle challenges people were facing during their adaptation to the COVID-19 outbreak. Her research explored the extent to which personality (e.g., self-control) and situational factors (i.e., local policies and lock down orders) predicted the development of new habits and changes in health behaviors, such as substance use, social media use, exercising, sleeping, and eating healthily.

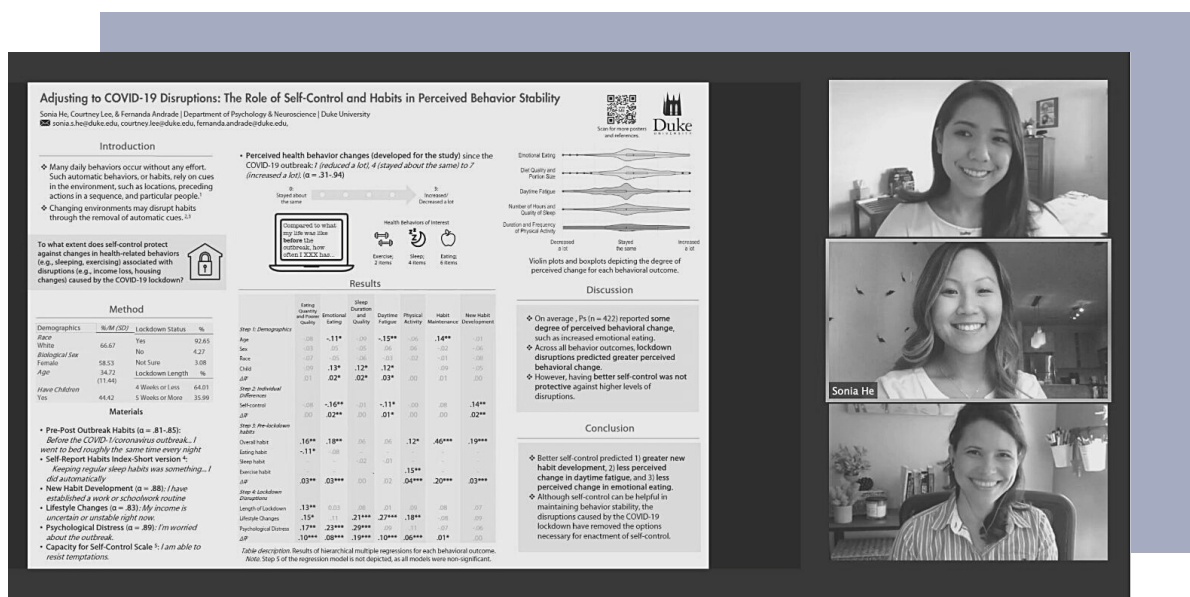
After data collection, a preliminary analysis of the findings showed that adults experiencing greater disruptions associated with the pandemic, such as job or income loss, reported worse psychological well-being, and greater change in their health behaviors; although, as anticipated, participants

better at self-control were better able to develop new habits during the pandemic.

Through the entire scope of the research project, Andrade mentored two undergraduate students—which culminated with one of the undergrads presenting the poster that they worked on collaboratively at a national virtual conference.

"This award has allowed me to collect data for a study that has been foundational for my training goals," Andrade said, "and to work closely with and mentor two Duke undergraduate students."

Andrade collected follow-up data on the study participants, is analyzing the full dataset, and hopes to eventually publish the study's findings.



(from top) Duke students Courtney Lee, Sonia He, and Fernanda Andrade present Covid-19 related research while attending the 2020 virtual meeting of the Society for Southeastern Social Psychologists.

FACULTY RESEARCH



Dr. Staci Bilbo: “Maternal diet and serotonin-inflammatory crosstalk in placenta and fetal brain”

Dr. Ruth Day: “Uncovering Knowledge Structures”

Dr. Sarah Gaither & Dr. Nancy Zucker: “Assessing Peer Coaching Support for Diverse Undergraduate Students”

Dr. Bridgette Hard: “How Do Professors’ Intuitive Theories About Teaching Shape Pedagogy”

Dr. Tobias Overath: “Dissociating Subcortical Speech versus Language Processing via Differential Phonotactic Sensitivity”

Dr. David Rubin: “Tonic Immobility in Sexual Assaults: Using Scientific Evidence for Practical Issues”

Dr. Timothy Strauman: “Curriculum as Intervention”

MENTAL HEALTH SUPPORT FOR STUDENTS FROM THEIR PEERS

DUKE UNDERGRADUATES CREATE PEER TEXTING PROGRAM, DUKELINE

A new texting platform called *DukeLine* has a single goal: improving the mental health of students through quick peer response. Managed by a team of 21 Duke undergraduates, the program provides anonymous peer support within minutes of outreach.

“There are a lot of barriers to students reaching out for help, including personal shame, skepticism about effectiveness and concerns about being misunderstood,” said Nancy Zucker, an Associate Professor in Psychiatry and Behavioral Sciences who advises the program. “Texting a trained peer is a low-stakes option for a student to test what it feels like to share something vulnerable – and to have that experience be helpful and meaningful.”

Zucker supervises the *DukeLine* program and teaches a semester-long peer coaching course that all students participating in *DukeLine* are required to complete. With help from a Bass Connections team, she also developed a high-quality, customized database that the peer coaches can search in real time while providing support.

Peer support programs have been gaining in popularity on college campuses. They can offer an important supplement to more formal, professional options, said Sarah Gaither, an Assistant Professor of Psychology and Neuroscience.



Gaither, who directs the Duke Identity & Diversity Lab, has encouraged the program to seek positive outcomes for underrepresented minority and international students. “I think DukeLine is unique because we realize that not all students from underrepresented backgrounds understand each other’s experiences,” Gaither said.

“Our design provides a much stronger support system for peer coaches than we’re seeing at other institutions,” she said. “For-credit course training, shorter on-call shifts, being paired with a clinical psychology graduate student – these are all deliberate measures to create better support for students on both sides.”

“Coaching can be triggering and there is a lot of stress and burnout. We’re focused on how the program benefits student users, and we’re also tracking how participation affects our peer coaches, who are students first.”

DukeLine also takes a rare approach in prioritizing its student coaches. While peer support programs benefit students generally, little attention has been paid to how the programs may affect the student coaches who provide support.

Feedback from *DukeLine* users has been overwhelmingly positive. Currently, the service is provided in three undergraduate dorms. The eventual hope is to expand more broadly across campus, and to provide access to graduate students.

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Gaither agrees.



RECRUITING STUDENT MENTORS FOR PSY 101

COSTANZO TEACHING FELLOWSHIP RAISES THE BAR FOR INTRODUCTION TO FIELD

Introductory Psychology, also known as Psychology 101, provides the first point of contact for students interested in pursuing psychology as a major. The curriculum for the course includes a strong writing component. Students are required to complete a term-long, multi-phase research and writing project designed to mimic the scientific process in psychology.

The project involves a small literature review, initial draft of an original research proposal, peer review, and then revision. By completing this project, students develop essential skills and receive one-on-one mentoring and support from their Costanzo Teaching Fellow.

The Costanzo Teaching Fellows (TFs) are a group of outstanding undergraduate students selected to gain teaching and mentorship experience in PSY 101, which is also one of Duke's largest undergraduate courses. The Costanzo TFs plan and lead sections for the PSY 101 class and provide feedback and support on all phases of the project.

“The Costanzo Teaching Fellowship is an incredible opportunity for students to develop as outstanding future leaders who are empathetic, compassionate, and derive a sense of success from what they can nurture in others. Although most of the TFs will not work professionally as teachers, they will carry the lessons of teaching with them into their work as physicians, counselors, managers, and more.”

*- Bridgette Hard, Ph.D
PSY 101 Professor*

The success of the research and writing project and of the course depends critically on recruiting talented students to serve as TFs. The TFs provide valuable support and inspiration to students in the course, and their assistance with grading allows faculty to measure student learning with richer assessments that go beyond multiple choice, and which develop writing and critical thinking skills.



"Being a TF has shown me that education is not only an avenue to develop my own passions but also a unique opportunity to empower and inspire others. It has been the most rewarding to mentor students, challenge them, offer support, and help them discover their passions, even if it were to be outside the field of psychology. Through this process, I've come to realize the importance of engaging with diverse perspectives and exploring interdisciplinary topics. Overall, this has been one of the most impactful and rewarding experiences I've had at Duke thus far."

- Toby Chen, '22