



Department of Psychology

Rowan University
April 22, 2021

About the Conference

The Rowan University Psychology Department's Annual Research Conference has been an ongoing tradition for 47 years. Its intent is to allow students from our undergraduate and graduate programs the opportunity to present their research findings in a professional context.

Psychology Department Mission

The mission of the Psychology Department is to provide a high-quality education to undergraduate and graduate students, engage in cutting-edge research in a variety of disciplines and sub-disciplines within psychology, and provide services to children and their families in the South Jersey region.

Students in our department work with faculty members on novel and innovative research across the diverse subfields within psychology and are placed in community agencies and businesses to gain first-hand experience of the application of psychological science in practice.

Department Head, Psychology Department

Dr. MaryLouise Kerwin

Conference & Awards Committee

Dr. Brittany Martinez, Chair	Dr. Daniel Bogart
Mr. Dan Dantine	Dr. Jeff Greeson
Ms. Brenda Harkins	Dr. Christina Simmons
Dr. Jim Haugh	Dr. Eve Sledjeski
Dr. Val LaMastro	Dr. Kaite Gotham
Dr. Lisa Abrams	

Special thanks to all the student volunteers!

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Conference Schedule

8:45 – 9:00	Welcome
9:00 – 10:00	Poster Session I
10:15 – 12:15	Oral Presentation Session I
10:15	<p style="text-align: center;"><i>Levels of Alcohol Use and Schizotypy as Predictors of Sexual Risk Behaviors</i> Megan Cartier Advisor: Dr. Thomas Dinzeo</p>
10:30	<p style="text-align: center;"><i>Efficiency and Preference for Alternative Activities During Schedule Thinning with Functional Communication Training</i> Giovanna L. Salvatore Advisor: Dr. Christina Simmons</p>
10:45	<p style="text-align: center;"><i>Recruitment of Students from Underrepresented Backgrounds in Doctoral Programs in Clinical Psychology: A Review of Program Websites</i> Shania Terry & Juliana D'Onofrio, MA Advisor: Dr. Jim A. Haugh</p>
11:00	<p style="text-align: center;"><i>Acceptability and Feasibility of Virtual Behavior Analysis Supervision</i> Abigail E. Moretti, Giovanna L. Salvatore, & Kimberly R. Ford Advisor: Dr. Christina Simmons</p>
11:15	<p style="text-align: center;"><i>A Heuristic Evaluation of the Psychology Department Website</i> Michael Onu Advisor: Dr. Patrice Tremoulet</p>
11:30	<p style="text-align: center;"><i>Improving Service for Adults with Autism through a Digital Assistant for Direct Support Professionals: Exploratory Focus Groups</i> Olivia McGough, Jaya Russell, & Matthew Ungerer, BA Advisor: Dr. Patrice Tremoulet</p>
11:45	<p style="text-align: center;"><i>Research in the Era of COVID-19: A Review of the Current Literature and Best Practices for Conducting Ethical Research in a Virtual Platform</i> Matthew Dwyer, MS & Natalie Donisi Advisor: Dr. Bethany Raiff</p>
12:00	<p style="text-align: center;"><i>Acceptability of Stepped-Care in College Students</i> Katelyn Santostefano, Karla Polanco, & Juliana D'Onofrio, MA Advisor: Dr. Jim A Haugh</p>
12:15	LUNCH BREAK

	Oral Presentation Session II
1:00	<i>Use of Mobile Applications for Mental Health Concerns During COVID-19</i> Matthew Iacoviello, Emma Keating, & Juliana D'Onofrio, MA Advisor: Dr. Jim A. Haugh
1:15	<i>An Analysis of Performative Activism</i> Caitlyn R. Upton, MS, MA Advisor: Dr. Bethany Raiff
1:30	<i>The Selection and Use of Mobile Applications for Depression and Anxiety</i> Danielle Schweitzer & Juliana D'Onofrio, MA Advisor: Dr. Jim A Haugh
1:45	<i>Cardiovascular Recovery from Emotional Stress: Operationalizing Equanimity following Mindfulness-Based Stress Reduction</i> Emma McBride, MA Advisor: Dr. Jeffrey Greeson
2:00	<i>Examining Boredom Proneness' Role in Schizotypy and Substance Use</i> Olivia McGough, Sherry Pujji, MA, & Jamie Sullivan Advisor: Dr. Thomas Dinzeo
2:15	<i>Does Dispositional Mindfulness Predict Cardiovascular Reactivity to Stress in Prehypertension? Latent Growth Curve Analyses from the Serenity Study</i> Gabrielle Chin, MA, Joel Hughes, PhD, & David Fresco, PhD Advisor: Dr. Jeffrey Greeson
2:30	<i>T3 Etiometry Heuristic Evaluation</i> Elizabeth Meyeroff Advisor: Dr. Patrice Tremoulet
2:45	<i>Evaluating an Operant Theory of Depression During the COVID-19 Pandemic</i> Maeve Donnelly, Matthew J. Dwyer, MS, Connor Burrows MA, & Steven Brunwasser, PhD Advisor: Dr. Bethany Raiff
3:15	Poster Session II
4:15	BREAK
4:30	Research Conference Awards Ceremony

Poster Sessions

Poster Session I	
1.	<p><i>Review of Alternatives to Physical Guidance for Skill Acquisition in Children with Autism Spectrum Disorder</i> Jenna E. Richards & Kimberly R. Ford Advisor: Dr. Christina A. Simmons</p>
2.	<p><i>Telehealth Comparison of Visual and Vocal Signals during Functional Communication Training Schedule Thinning</i> Rianna Alvarado, Giovanna L. Salvatore, & Abigail E. Moretti Advisor: Dr. Christina A. Simmons</p>
3.	<p><i>Sex and Gender Minority Status and Emotional Health in Autistic Adults</i> Megan Mason, Jonathan Gamutan, & Jared Richards, BS Advisor: Dr. Katherine Gotham</p>
4.	<p><i>Prospective Predictors of Mental Health Symptoms Across the First Semester of College in Autistic and Non-autistic Students</i> Erin E. McKenney, BA Advisor: Dr. Katherine Gotham</p>
5.	<p><i>Addressing Gender and Sexual Minorities in Mindfulness Research: A Narrative Review</i> Kora Clauser & Emma McBride, MA Advisor: Dr. Jeffrey Greeson</p>
6.	<p><i>Formative Testing of Membership Engagement Technology</i> Christian Grant Advisor: Dr. Patrice Tremoulet</p>
7.	<p><i>Perceived Stress Trajectories During the Transition to College: Are International Students and Students of Color at Elevated Risk?</i> Arianna Abulevsko, Violet Terwilliger, AA, Camila Mira, & Nicole Kelso, MS Advisor: Dr. Steven Brunwasser</p>
8.	<p><i>An Evaluation of Visual Schedules to Treat Vocal Stereotypy</i> Phoebe Leach, Giovanna L. Salvatore, & Sherah Somervell Advisor: Dr. Christina A. Simmons</p>
9.	<p><i>Heuristic Evaluation of Campbell Library Website</i> Tavis Baylor, Olivia McGough, & Matthew Ungerer, BA Advisor: Dr. Patrice Tremoulet</p>
Poster Session II	
10.	<p><i>The Assessment of Desensitization and Aggression as Factors Related to Violence from Video Games</i> Nicolay McGrath, Tara Oster, & Lauren Vitale Advisor: Dr. Lisa Abrams</p>
11.	<p><i>Health Behaviors Among Recreational Drug Users and Non Users</i> Christian Grant & Paige Ryan Advisor: Dr. Lisa Abrams</p>
12.	<p><i>Analyzing Commonly Used Conceptualizations of Sexual Orientation - Sexual Orientation Study</i> Giuliana Caprara, Valerie Humphreys, & Khanh Pham Advisor: Dr. Lisa Abrams</p>

13.	<p><i>Drinking Motives as Mediators of Prospective Associations Between College Alcohol Beliefs and Drinking Outcomes</i> Faith Shank MA, Jonathan Gamutan, Angelo M. DiBello PhD, Nadine. R. Mastroleo PhD, & Kate. B. Carey PhD Advisor: Dr. Chelsie Young</p>
14.	<p><i>Does Decentering Mediate the Relationship Between Mindfulness and Stress and Anxiety?</i> Hana Lee, BA Advisor: Dr. Jeffrey Greeson</p>
15.	<p><i>Undergraduate Students' Familiarity of and Opinions on Major Social Movements Over the Past Decade (2010-2020)</i> Gabriel Ruscansky & Jonathan Gamutan Advisor: Lisa Abrams</p>
16.	<p><i>Predictors of Physical Health and Quality of Life in Autistic Adults</i> Jared K. Richards, BS & Sarah E. Transue, BA Advisor: Dr. Katherine Gotham</p>
17.	<p><i>Usability Testing of TrachAlarm, A Novel Medical Device</i> Jena Mota Advisor: Dr. Patrice Tremoulet</p>
18.	<p><i>The Role of Optimism in Associations among Depressive Symptoms, Drinking and Problems in College</i> Alexcia Aris & Rohini Pandey Advisor: Dr. Chelsie Young</p>

Oral Presentation Abstracts

Title: *Levels of Alcohol Use and Schizotypy as Predictors of Sexual Risk Behaviors*

Authors: Megan Cartier

Student Presenter: Megan Cartier

Program: BS in Psychological Science

Advisor: Dr. Thomas Dinzeo

IRB#: Pro2019000333 and Pro2020000973

Abstract: The term 'schizotypy' refers to the presence of potential risk-factors (e.g., behavioral, cognitive) for schizophrenia. The development of schizophrenia generally occurs in young adulthood and engagement in substance use further heightens the risk for the emergence of schizophrenia-spectrum symptoms. The current study sought to examine the relationship of alcohol usage, levels of schizotypy, and the presence of sexual risk behaviors (SRBs) which can be associated with victimization or other negative outcomes. We hypothesized that higher levels of alcohol usage and positive symptoms (e.g., anomalous perceptions or beliefs) would predict higher SRBs. We expected negative symptomatology (e.g., interpersonal difficulties) act as a protective factor against engagement in sexual risk. As an exploratory hypothesis, we anticipated that disorganized symptoms would predict sexual risk. This study was approved by the university institutional review board. Participants were undergraduate students (n=204, 115 males, 89 females) with a mean age of 19.25 (SD=1.24). A hierarchical linear regression analysis was used for each subscale of the Sexual Risk Survey to test whether alcohol usage and schizotypy scores predicted participant's levels of sexual risk behaviors. It was found that alcohol usage and positive symptoms were predictors of most forms of sexual risk, while negative symptoms were a protective factor against most forms of sexual risk. Disorganized symptoms were only seen to be a predictor for SRBs involving anal acts. Our results aligned with the hypotheses and suggest that psychoeducational programs incorporate topics of alcohol use and misuse, as well as sexual risk into psychosis intervention efforts.

Title: *Efficiency and Preference for Alternative Activities During Schedule Thinning with Functional Communication Training*

Authors: Giovanna L. Salvatore

Student Presenter: Giovanna L. Salvatore

Program: Clinical Psychology PhD

Advisor: Dr. Christina A. Simmons

IRB#: Pro2018002421

Abstract: Functional communication training (FCT) is an effective treatment for decreasing socially-reinforced destructive behavior (Carr & Durand, 1985). Multiple schedules are frequently used to thin the reinforcement schedule during FCT (Hanley et al., 2001). An extinction burst is possible with each schedule thinning step, contributing to slow treatment progress. In clinical practice, individuals are often expected to sit and wait during periods of

restricted access to functional reinforcers; however, in the natural environment, they generally do not wait without alternative items/activities available. Nine children referred for treatment of destructive behavior participated in this study. Therapists conducted functional analyses and taught participants a functional communication response to access functional reinforcers. Therapists implemented a multiple schedule during schedule thinning, comparing a control condition (nothing available during S-delta intervals) to separate conditions with embedded items/activities during S-delta intervals (moderately preferred tangible items, attention, demands). After reaching the terminal schedule in at least one condition, therapists assessed participant preference across S-delta conditions. All participants were able to reach the terminal schedule with alternative items/activities compared to 3 eventually reaching the terminal goal in the control condition (i.e., no alternative items/activities available). All participants demonstrated preference for alternative items/activities and therapists indicated preference for conducting these sessions. For 6 participants, we simultaneously targeted an escape function during the S-delta condition including demands.

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Title: *Recruitment of Students from Underrepresented Backgrounds in Doctoral Programs in Clinical Psychology: A Review of Program Websites*

Authors: Shania Terry & Juliana D'Onofrio, MA

Student Presenter: Shania Terry

Program: BA in Psychology

Advisor: Dr. Jim A. Haugh

IRB#: N/A

Abstract: Increasing diversity in Clinical Psychology has been stressed within the literature and by professional organizations (e.g., American Psychological Association, 2011; Bersoff, 2013). Although the United States population is increasingly diverse (Colby & Ortman, 2015), the psychology field has failed to change accordingly. To increase diversity within the field, programs must ensure that more diverse students are recruited into clinical psychology doctoral programs.

One major vehicle for recruitment is the program's website. The goal of the study was to code all accredited doctoral programs in clinical psychology to better understand how diversity is represented on program websites. The presence of the following variables were coded: an antistatrimination policy, financial aid for underrepresented students, a commitment to training students in diversity-related topics, a statement of aim of diverse recruitment, faculty diversity-related research, mentorship opportunities, and a program-specific diversity committee. We plan to utilize the ADDRESSING framework (Hays, 2001) to code for each group represented within this model, while also assessing intersectionality. Our analysis will include all APA-accredited clinical psychology Ph.D. and Psy.D. programs.

We plan to have reviewed 15% of our total sample by the date of the conference. Preliminary data will include descriptive statistics of the above mentioned variables. We hope that the results of this study will inform us about what clinical psychology programs are doing to recruitment students from underrepresented backgrounds.

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Title: *Acceptability and Feasibility of Virtual Behavior Analysis Supervision*

Authors: Abigail E. Moretti, Giovanna L. Salvatore, & Kimberly R. Ford

Student Presenter: Abigail E. Moretti

Program: Clinical Psychology PhD

Advisor: Dr. Christina A. Simmons

IRB#: Pro2020001110

Abstract: The COVID-19 pandemic necessitated a rapid transition to virtual service delivery and supervision. This study examined the acceptability and feasibility of virtual supervision for 94 BCBA/BCaBA trainees during COVID-19, including variables that impacted perceived satisfaction, effectiveness, and supervision preference. Results indicate a decrease in accrual of direct client hours during the pandemic, with a third of participants reporting a decrease in individual supervision. Participants were largely satisfied with virtual individual and group supervision as indicated by high satisfaction domain scores and individual item means, with minimal overall change in satisfaction. Participants indicated preference for in-person or hybrid supervision and considered in-person most effective. Participants reported that supervisors used best-practice strategies and that virtual supervision was largely feasible. We discuss variables that impacted satisfaction (length of supervisory relationship), preference (age, services provided), and perceived effectiveness (time supervisor was a BCBA). We provide practical implications and recommendations for virtual behavior analytic supervision.

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Title: *A Heuristic Evaluation of the Psychology Department Website*

Authors: Michael Onu

Student Presenter: Michael Onu

Program: BS in Health and Exercise Science, Minor in Psychology

Advisor: Dr. Patrice Tremoulet

IRB#: N/A

Abstract: The Rowan Psychology Department's website is important for both current and prospective students. The site features valuable information such as student resources, research opportunities, and contact information for the faculty and staff. It is necessary that the website is as user-friendly as possible to ensure students can easily and efficiently access all the information they need. Four undergraduate students conducted a heuristic evaluation to assess the Psychology Department's website. They discovered potential usability issues by identifying violations of Jakob Nielsen's 10 usability heuristics for user interface design. Ten violations of heuristics such as 'Visibility of system status', 'Consistency and standards', 'Error prevention', 'Aesthetic and minimalist design', and 'Help and documentation' were found. The potential issues corresponding to those issues were then rated in terms of severity. The findings of the study can be used to improve the overall usability of the Psychology Department's website.

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Title: *Improving Service for Adults with Autism through a Digital Assistant for Direct Support Professionals: Exploratory Focus Groups*

Authors: Olivia McGough, Jaya Russell, & Matthew Ungerer, BA

Student Presenter: Olivia McGough, Jaya Russell, Matthew Ungerer

Program: BS in Psychological Science, BA in Psychology

Advisor: Dr. Patrice Tremoulet

IRB#: Pro2020001085

Abstract: Direct Support Professionals (DSPs) who assist adults with autism sometimes find it difficult to keep up with administrative tasks including the documentation of important data needed to by others who also provide support to their clients (e.g., behavior analysts, physicians, other DSPs). Existing technologies, such as cameras and smart speakers, could potentially be leveraged to help capture some of the data that DSPs are asked to report as part of their work responsibilities. However, it is not currently known whether DSPs would be amenable to using these technologies 'on the job'. This paper presents preliminary results from two exploratory focus groups where DSPs were asked to discuss the idea of using different types of technologies to facilitate capturing data about clients they serve.

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Title: *Research in the Era of COVID-19: A Review of the Current Literature and Best Practices for Conducting Ethical Research in a Virtual Platform*

Authors: Matthew Dwyer, MS & Natalie Donisi

Student Presenter: Matthew Dwyer

Program: PhD in Clinical Psychology

Advisor: Dr. Bethany Raiff

IRB#: Pro2020001076

Abstract: Online crowdsourcing platforms have revolutionized 21st-century social science research. With platforms like SONA systems, Prolific Academic, and Amazon Mechanical Turk, researchers can easily and rapidly recruit large samples in a streamlined interface for advertising, enrollment, and payment for participation. In the wake of the COVID-19 pandemic, this trend is likely to continue as researchers pivot to conducting human subject research virtually. Despite these positives, there are limitations to these programs, which may result in samples with relatively low diversity at a high financial cost. Alternatively, forum-based social media sites such as Reddit are not used as frequently as recruitment sources but may have some advantages over these more common platforms. However, forum-based platforms are not designed for research recruitment and could have both methodological and ethical pitfalls. To help researchers interested in pivoting to online human subjects data collection, we developed guidelines for conducting effective and ethical online forum-based research based on our experience. We will present a case study of crowdsourced recruitment during the Covid-19 pandemic to illustrate do's and don'ts when using online forum platforms.

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Title: *Acceptability of Stepped-Care in College Students*

Authors: Katelyn Santostefano, Karla Polanco, & Juliana D'Onofrio, MA

Student Presenter: Katelyn Santostefano, Karla Polanco

Program: BS in Psychological Science, BA in Psychology

Advisor: Dr. Jim A. Haugh

IRB#: Pro2016001559

Abstract: Many college counseling centers have trouble meeting the mental health needs of their students (Cornish et al., 2017). For example, 88% of counseling center directors reported students may not receive timely treatment, 79% reported students are not seen as often unless they are in crisis, and 35% reported waitlists (Reetz et al., 2014). While psychotherapy and medication remain as standard care, up to 50% of individuals prematurely drop out of treatment (Marks, 2002). Stepped-care models (SCM) include many treatment options with varying levels of intensity (Brotten et al., 2011), allow for flexibility, and are cost-effective (Reetz et al., 2014). However, little is known about whether the SCM would be acceptable to college students. The purpose of the study was to explore the acceptability and preferences for the treatment of depression in a sample of college students. Participants were 446 undergraduates, who were asked to indicate whether they view the SCM as acceptable and what treatments they would prefer if seeking help for depression. Results indicated that 46% viewed SCM as acceptable and 47% viewed it to be an improvement on standard care. When asked what treatment participants would prefer, they mostly preferred psychoeducation/self-help (41%) and watchful waiting (33%). Overall, results suggest college students have specific preferences and may prefer these alternatives to standard care. As prior research indicates psychoeducation and self-help can be effective for mild/moderate symptoms of depression (Newman et al., 2003), implementing the SCM in counseling centers may reduce the aforementioned challenges to treating college students.

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Title: *Use of Mobile Applications for Mental Health Concerns During COVID-19*

Authors: Matthew Iacoviello, Emma Keating, & Juliana D'Onofrio, MA

Student Presenter: Matthew Iacoviello, Emma Keating

Program: BA in Psychology

Advisor: Dr. Jim A. Haugh

IRB#: IRB-FY2021-18

Abstract: The coronavirus pandemic has disrupted the lives of billions across the globe, leaving people to cope with novel stressors (WHO, 2020). Quarantines have become especially problematic for mental health, with possible psychological concerns including increases in anxiety, depression, and loneliness (Luo et al., 2020). Through the shift of activities to virtual settings, the way people receive mental health services has been altered. For example, mobile health (m-health) can provide alternatives for people looking to stay home and address their mental health concerns virtually. Mobile apps are cost-effective, easily accessible, convenient,

and time-efficient (Donker et al., 2013; Gulliver, Griffiths, & Christensen, 2010). While thousands of mental health apps are available for download, there remains little efficacy research and a lack of guidelines on how to develop them (Wang et al., 2020; Longyear & Kushlev, 2021). The purpose of the current study was to explore the use of mental health apps during the coronavirus pandemic. In order to do so, we created a four section survey to assess the perceived effectiveness of apps in alleviating mental health symptoms during the pandemic. The first section asked participants what influenced them to download an app, the second section asks about app use, the third section asks about how the app has or has not helped the user, and the fourth section asks about experiences in the pandemic. Results of this study will provide novel information about mobile app effectiveness pertaining to managing symptoms during the pandemic to researchers and potential app developers.

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Title: *An Analysis of Performative Activism*

Authors: Caitlyn R. Upton, MS, MA

Student Presenter: Caitlyn R. Upton

Program: PhD in Clinical Psychology

Advisor: Dr. Bethany Raiff

IRB#: N/A

Abstract: In the wake of social efforts to recognize and combat the continued epidemic of racism in the United States, “performative activism” (also referred to as “performative allyship”) has been discussed. Performative activism describes behavior that individuals engage in to show that they are against racism or racist ideology; however, it is considered “performative” because the behavior itself appears to address the issues without combating the factors perpetuating racism . One example of performative allyship was exhibited when thousands of Instagram users and companies posted black squares along with the hashtag #BlackLivesMatter, to signal their support of the movement. Critics of this activity highlighted how the participants gained social rewards for their actions via social media, while those actions harmed the movement by burying antiracism resources that would otherwise have been available from the #BlackLivesMatter hashtag. In this presentation we will explore the immediate, individual-level motivating factors, rewards and consequences of performative activism and true activism. We will contrast them with the delayed, societal-level consequences that may actually harm, rather than help, the movement, and we will also explore how response effort and stimulus control may make performative acts more likely to occur than other forms of activism

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Title: *The Selection and Use of Mobile Applications for Depression and Anxiety*

Authors: Danielle Schweitzer & Juliana D'Onofrio, MA

Student Presenter: Danielle Schweitzer

Program: BA in Psychology
Advisor: Dr. Jim A. Haugh
IRB#: Pro2020001127

Abstract: Mobile interventions could help users manage depressive symptoms, but users frequently discontinue app use within two weeks. Moreover, little is known about the process of selecting mental health apps and what factors contribute to continued use. The purpose of the study was to examine factors related to app selection, continued use, and the relation between app use and symptoms of depression and anxiety. A mixed-methods design was utilized. Participants (N=20) were contacted individually over a 2-week period. In the first meeting, participants completed a baseline survey and chose a mental health app on their smartphone. Next, participants briefly used the app and were interviewed about choosing an app. Following this meeting, participants were interviewed weekly. Results indicated that participants initially searched by using the app store (80%), followed by completing a Google search (15%), or contacting a friend for a recommendation (5%). Frequently chosen apps included “MindDoc” (n=3) and “Wysa” (n=3). Over two weeks, depressive symptoms decreased by an average of 5.11 points on PHQ-8 and anxiety symptoms decreased by an average of 3.79 points on GAD-7. Each week, minutes of app use increased by an average of two minutes and 21 seconds, while frequency of opening apps decreased by an average of 2.21 opens. Preliminary results indicate that individuals may use multiple methods to choose mental health apps. Additional data will be examined, including reasons for decreased or continued use as well as specific app features perceived to be most helpful.

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Title: *Cardiovascular Recovery from Emotional Stress: Operationalizing Equanimity following Mindfulness-Based Stress Reduction*

Authors: Emma McBride, MA

Student Presenter: Emma McBride

Program: PhD in Clinical Psychology
Advisor: Dr. Jeffrey Greeson
IRB#: N/A

Abstract: **OBJECTIVE:** Cardiovascular recovery from stress, an indicator of cardiac disease risk, may improve following mindfulness training. However, the statistical methodology for assessing physiological recovery from stress remains controversial. Using several methods of measuring cardiovascular recovery, this project investigated whether: (1) Mindfulness-Based Stress Reduction (MBSR) is associated with improved cardiovascular recovery, and (2) whether the effect of MBSR on cardiovascular recovery is consistent across statistical methods. **METHODS:** Using a pretest-posttest repeated measures design, 56 medically healthy adults completed MBSR bracketed by laboratory stress testing. Heart rate (HR) and blood pressure (SBP/DBP) recovery were calculated using simple change scores, residualized change scores, and percent-recovery. **RESULTS:** After controlling for age, sex, and BMI, general linear models showed improved BP recovery following MBSR (SBP: $\beta = 2.16$, $p < .05$; DBP: $\beta = 2.20$, $p < .05$). However, this effect held only for simple change scores, disappearing when baseline and stress-induced BP reactivity were controlled for using residualized change scores and percent-recovery. HR recovery was unchanged.

DISCUSSION: Blood pressure recovery may improve following mindfulness training, but results can be confounded by individual differences in baseline BP and BP reactivity to stress. Results have important implications for statistical conclusions validity in mindfulness research and ultimately contradict theoretical models predicting faster physiological recovery from emotional stress following mindfulness training. Future research is needed to refine measurement validity in stress recovery research in order to clarify whether mindfulness training can impact cardiovascular recovery from stress and thereby promote physical and psychological well-being.

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Title: *Examining Boredom Proneness' Role in Schizotypy and Substance Use*

Authors: Olivia McGough, Sherry Pujji, MA, & Jamie Sullivan

Student Presenter: Olivia McGough

Program: BS in Psychological Science

Advisor: Dr. Thomas Dinzeo

IRB#: Pro2016001470

Abstract: Boredom proneness is defined as the frequency and propensity to experience boredom and could be an important link in understanding patterns of substance use among those at-risk for psychosis (i.e. individuals with high levels of schizotypy). Higher usage rates may reflect attempts to relieve boredom and may be associated with risk for developing severe symptomology. Given the paucity of research among these variables, the current study sought to examine the influence of boredom proneness on schizotypy and substance use in a college sample (n=546). We anticipated that moderate-high levels of boredom proneness would relate to higher negative/positive schizotypy and substance use levels. We also anticipated that schizotypy and boredom proneness would independently predict perceived substance use. Preliminary results suggest that schizotypy levels (one-way ANOVA) and perceived tobacco/alcohol use (Kruskal-Wallis Test) independently increase as boredom proneness increases. Contrary to our hypothesis, increased negative schizotypy predicted decreased perceived alcohol use above and beyond boredom proneness (hierarchical linear regression). No significant relationship was found between boredom proneness and nicotine dependency (Spearman's correlation). Based on the novel current findings, there is preliminary support for the role of boredom proneness being a possible additional risk factor towards alcohol/tobacco use and elevated schizotypy levels. Additionally, it may be that negative schizotypy, characterized by elements of social withdrawal, acts as a partial protective factor against alcohol use due to a decrease in social situations that often precipitate college alcohol use. Further research should seek to determine directionality and utilize an in-depth substance use assessment.

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Title: *Does Dispositional Mindfulness Predict Cardiovascular Reactivity to Stress in Prehypertension? Latent Growth Curve Analyses from the Serenity Study*

Authors: Gabrielle Chin, MA, Joel Hughes, PhD, & David Fresco, PhD

Student Presenter: Gabrielle Chin

Program: PhD in Clinical Psychology

Advisor: Dr. Jeffrey Greeson

IRB#: N/A

Abstract: OBJECTIVE: Mindfulness stress buffering theory (Creswell & Lindsay, 2014) posits higher dispositional (trait) mindfulness can protect cardiovascular health by buffering physiological stress reactivity – a risk marker for hypertension and cardiac events. Yet, empirical evidence is mixed. This study used baseline data from the Serenity Study – a recently completed, two-site randomized clinical trial (NCT02371317) – to assess the link between trait mindfulness and cardiovascular stress reactivity in adults with unmedicated prehypertension (n=153, Mage=50, 47% male, 69% White, 28% African-American).

METHODS: Latent growth curve modeling was used to determine whether specific facets of trait mindfulness, measured by the Five Facet Mindfulness Questionnaire and the Decentering subscale of the Experiences Questionnaire, predict blood pressure (BP) and heart rate (HR) responses to a brief laboratory stressor (5-min anger recall task). BP and HR taken 1-min apart were used in latent growth curve models. We hypothesized after controlling for known covariates of cardiovascular health, higher trait mindfulness would predict lower cardiovascular reactivity to, and faster recovery from, acute emotional stress.

RESULTS: Contrary to predictions, no mindfulness facets predicted cardiovascular reactivity or recovery.

DISCUSSION: These findings indicate most trait mindfulness facets do not independently affect BP and HR responses to acute emotional stress among prehypertensive but otherwise healthy adults with normal stress levels, prior to mindfulness training. Mindfulness-based interventions may therefore be necessary to engender benefits of mindfulness on stress physiology, as a putative biological mechanism of cardiovascular risk reduction and health promotion.

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Title: *T3 Etiometry Heuristic Evaluation*

Authors: Elizabeth Meyeroff

Student Presenter: Elizabeth Meyeroff

Program: BA in Computing and Informatics

Advisor: Dr. Patrice Tremoulet

IRB#: N/A

Abstract: Etiometry has developed physiological monitoring data aggregation and display software, called T3. This software presents data gathered from a variety of sources such as pulse oximeters and EKGs, and two novel risk indexes to clinicians. In particular, T3 predicts and displays the probability that a patient is experiencing inadequate oxygen delivery or inadequate carbon dioxide ventilation by computing the Inadequate Delivery of Oxygen Index (IDO2) or Inadequate Carbon Dioxide Ventilation Index (IVCO2), respectively. It is important to ensure that potential users understand how to appropriately interpret and interact with Etiometry's T3 Software to support clinical decision-making. T3 pulls in data from many different sources; it needs to present this data, and the risk indexes that it computes, in an easy to use and easy to understand interactive display. Five students with prior experience conducting heuristic evaluations applied the 14 medical device usability heuristics developed by Zheng et al (2003) to assess usability of T3 software with the intention to help ensure and/or improve usability.

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Title: *Evaluating an Operant Theory of Depression During the COVID-19 Pandemic*

Authors: Maeve Donnelly, Matthew J. Dwyer, MS, Connor Burrows MA, & Steven Brunwasser, PhD

Student Presenter: Maeve Donnelly

Program: BA in Psychology

Advisor: Dr. Bethany Raiff

IRB#: Pro2020001076

Abstract: The COVID-19 pandemic has disrupted everyday life and has caused both financial and psychological distress secondary to the damage from the virus itself. There is emerging research to suggest individuals impacted by the pandemic are at a greater risk for depression. However, more research is needed to identify the most relevant mechanisms that may explain this connection and inform intervention. Behavioral theories of depression from an operant perspective, which posit depression as a consequence of low access and engagement in valued activity, could be well suited. Early restrictions including social distancing, business closure, and quarantine have resulted in a decreased opportunity to engage in valued activities. But it is unclear whether access to social activities in particular has a larger impact on depression related to COVID-19. Therefore, the goal of this study was to investigate how access and engagement in both social and alone valued activity mediates the relationship between COVID-19 disruption and depressive symptomology. We recruited participants (n= 1,000) from social media websites between June and July of 2020 to complete several surveys to assess mental health impacts of the pandemic. The indirect effect of engagement in valued activity was determined using a multiple mediation path analysis. Using a model comparison approach, we examined valued activities identified in the questionnaire that were classified as either social or alone activities. Results from this confirmatory approach to theory testing will be presented with implications for both assessment and treatment of depression due to pandemic fallout.

Poster Sessions Abstracts

Title: *Review of Alternatives to Physical Guidance for Skill Acquisition in Children with Autism Spectrum Disorder*

Authors: Jenna E. Richards & Kimberly R. Ford

Student Presenter: Jenna E. Richards

Program: BA in Psychology

Advisor: Dr. Christina Simmons

IRB#: Pro2018002421

Abstract: Behavior analysts frequently use physical guidance to facilitate skill acquisition. However, in some situations, physical guidance may be contraindicated (e.g., large stature, touch aversion, trauma history). We conducted a systematic literature review of alternatives to physical guidance in articles from 2009-2020 that included school-aged children (3-18 years) with autism spectrum disorder. Preliminary results of 242 articles with 1,247 participants indicate that video modeling was the primary alternative intervention, followed by the use of model (e.g., physical or pictorial), vocal, and gestural prompts within intervention packages. Interestingly, of the interventions using video modeling, 38.04% included another intervention component that did use physical guidance (e.g., least-to-most prompting). Few published studies compared the efficacy of physical guidance and alternative interventions (5.79%). We present data systematically quantifying the efficacy and efficiency of skill acquisition with and without physical guidance. Many intervention packages include environmental manipulations (e.g., activity schedules) and other intervention components (e.g., differential reinforcement) to enhance the efficacy of skill acquisition interventions. We further report on the lack of generalization (51.24%), maintenance (47.11%), and social validity (38.84%) measures in the studies included in this review. Further, we discuss the implications of selecting alternatives when physical guidance is contraindicated and explore best practices.

Title: *Telehealth Comparison of Visual and Vocal Signals during Functional Communication Training Schedule Thinning*

Authors: Rianna Alvarado, Giovanna L. Salvatore, & Abigail E. Moretti

Student Presenter: Rianna Alvarado

Program: BA in Psychology

Advisor: Dr. Christina Simmons

IRB#: Pro2018002421

Abstract: Behavior analysts have increasingly relied upon telehealth service delivery for the treatment of challenging behavior. The efficacy of implementing functional communication training (FCT) via telehealth has been previously established (e.g., Wacker et al., 2013a; Suess et al., 2014), with limited application of remote schedule thinning (Wacker et al. 2013a; Tsami et al., 2019). An evaluation of different types of multiple schedule procedures during schedule thinning indicated the effectiveness of both visual and vocal signals of contingencies (Tiger et al., 2008). The current study extends the literature by demonstrating telehealth FCT and reinforcement schedule thinning and comparing multiple schedule thinning signal modalities for one participant whose protests were reinforced by social control (i.e., reinforcement of participants' mands). Following successful application of FCT in which an appropriate functional communication response (FCR) resulted in access to the functional reinforcer, two multiple schedule conditions were used to thin the schedule of reinforcement. Reinforcement and

extinction contingencies using visual (i.e., color-correlated stimuli) and vocal (i.e., vocal cues) signals were compared. Although both conditions resulted in low levels of protests and high independent correct FCRs, the participant reached the terminal schedule more efficiently in the vocal signal condition and both the participant and therapists demonstrated preference for the vocal signal. Results maintained and generalized to the primary caregiver.

Keywords: schedule thinning, signals, functional communication training, telehealth, preference.

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Title: *Sex and Gender Minority Status and Emotional Health in Autistic Adults*

Authors: Megan Mason, Jonathan Gamutan, & Jared Richards, BS

Student Presenter: Megan Mason, Jonathan Gamutan

Program: BA in Psychology, BS in Psychological Science

Advisor: Dr. Katherine Gotham

IRB#: Pro2019000852

Abstract: Prior research suggests that autistic women experience notably higher rates of depression and anxiety compared to autistic men (Uljarević et al., 2019). Additionally, recent findings suggest that identifying with a minority group, such as gender and sexual minorities and/or the autism population, is associated with poorer emotional health outcomes (George & Stokes, 2018). The nature of the present study was to examine how birth-assigned sex, gender, and sexual orientation relate to depression and anxiety outcomes in a large sample of autistic adults. We hypothesized that participants who were birth-assigned female, non-binary gendered, or who identified as non-heterosexual would endorse higher levels of depression and anxiety. Data were collected from N=727 adults with self-reported autism diagnoses recruited through the SPARK registry (63.4% birth-assigned female; 55.2% identified as women; 56.9% heterosexual). The Beck Depression Inventory (BDI-II; Beck, 1996) and Generalized Anxiety Disorder-7 GAD-7; Spitzer et al., 2006) indexed depression and anxiety symptoms, respectively. Univariate analyses of variance with Tukey post-hoc tests were conducted to examine specific patterns of association between sex/identity and emotional health scores. Demographic factors related to birth-assigned sex, gender, and sexual orientation appear to have a significant influence on emotional health, specifically depression and anxiety, in the autistic adult population. This replicates findings from the general population (Halladay et al., 2015), and may have specific import to the autistic population, which tends to report proportionally higher rates of non-conforming gender and sexual identities (Halladay et al., 2015; Strang et al., 2014).

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Title: *Prospective Predictors of Mental Health Symptoms Across the First Semester of College in Autistic and Non-autistic Students*

Authors: Erin E. McKenney, BA

Student Presenter: Erin E. McKenney

Program: PhD in Clinical Psychology

Advisor: Dr. Katherine Gotham

IRB#: Pro2020001172

Abstract: Prevalence rates suggest autistic adults are more likely than non-autistic adults to experience depression (Hollocks et al., 2019). Increased risk of social disappointment (Smith & White, 2020) and greater repetitive thinking (Rieffe et al., 2014) may contribute to this increased prevalence. The current study examines negative repetitive thinking and social dissatisfaction as prospective predictors of depression in a longitudinal sample of first-semester college students. We hypothesize that (1) students who report greater capacity for social reward at baseline and lower social involvement throughout the semester will experience greater depressive symptoms over time; (2) on average,

increases in negative repetitive thinking will precede increases in depressive symptoms. We recruited incoming college students who reported either no history of autism (n=28) or suspected/diagnosed autism (n=15). Participants completed a baseline survey including behavioral and physical health constructs. Participants then completed 10-question surveys twice per week for 12 weeks; surveys included markers of negative repetitive thinking, social satisfaction, and depressive symptoms. Participants completed a semester-end battery like baseline. Preliminary results suggest greater self-reported social motivation (ACIPS; M = 82.13, SD = 16.95) was associated with lower depression (BDI-II; M = 11.22, SD = 0.91) scores at baseline ($r = -0.46$, $p < 0.01$). Additionally, repetitive behavior (RBS-R; M = 14.74, SD = 15.90) during baseline was positively correlated with sadness scores five weeks later (M = 2.35, SD = 1.26) ($r = 0.41$, $p = 0.04$). Mechanisms related to depression are unlikely to differ between groups, but autistic adults may be more likely to experience some of these psychosocial predictors.

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Title: *Addressing Gender and Sexual Minorities in Mindfulness Research: A Narrative Review*

Authors: Kora Clauser & Emma McBride, MA

Student Presenter: Kora Clauser

Program: BS in Biological Sciences, Minor in Psychology

Advisor: Dr. Jeffrey Greeson

IRB#: N/A

Abstract: INTRODUCTION: Lesbian, gay, bisexual, trans, and queer (LGBTQ+) adults make up 4.5% of the U.S. population and experience significant minority stress. Mindfulness, defined as awareness and acceptance of present moment experience, may buffer minority stress and improve mind-body health, but LGBTQ+ communities have been understudied in mindfulness research.

METHODS: We searched PubMed, Web of Science, and PsycInfo through March 2021 using the following combination of keywords: (mindfulness OR mindfulness-based OR MBI OR MBSR) AND (gender and sexual minorities OR gay OR lesbian OR transgender OR bisexual OR homosexual OR asexual OR non-binary OR LGBT OR LGBTQ OR LGB).

RESULTS: 86 articles were screened. 10 were included, 5 of which were published within the past three years. There were 6 survey studies, and 4 intervention studies, which used either Mindfulness-Based Stress Reduction (MBSR) or a novel mindfulness-based intervention (MBI). Sample size ranged from 17 to 428 (mean = 159). Most studies focused on specific populations within the LGBTQ+ community, such as Latina/o sexual minority youth or lesbian/bisexual women over forty. Several studies found that mindfulness may buffer the negative effects of minority stress, and positive associations were observed between mindfulness and indicators of mind-body health, including perceived stress, physical activity level, and cholesterol levels.

CONCLUSION: A small but growing body of evidence suggests that some mental and physical health benefits of mindfulness may extend to gender minorities, but lack of replication studies, niche populations, and variation in interventions limit generalizability and more research is needed.

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Title: *Formative Testing of Membership Engagement Technology*

Authors: Christian Grant

Student Presenter: Christian Grant

Program: BS in Psychological Science

Advisor: Dr. Patrice Tremoulet

IRB#: N/A

Abstract: Quantum Membership Engagement Technology (QMeTech) creates customized game-based systems that are intended to enable professional associations increase membership engagement. Recognizing that excellent usability would be needed in order to keep members engaged in games that run on their software, QMeTech leadership reached out to a human factors psychologist, who agreed to train undergraduate students interested in human factors to conduct formative evaluations of QMeTech products. Twelve students participated in heuristic evaluations of three products over a period of three years. Results and recommendations generated from those evaluations have helped to improve usability of all QMeTech's products. Since the products are still evolving, formative testing is ongoing.

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Title: *Perceived Stress Trajectories During the Transition to College: Are International Students and Students of Color at Elevated Risk?*

Authors: Camila Mira, Arianna Abulevsko, Violet Terwilliger, AA, & Nicole Kelso, MS

Student Presenter: Camila Mira, Arianna Abulevsko, Violet Terwilliger, Nicole Kelso

Program: BA in Psychology, PhD in Clinical Psychology

Advisor: Dr. Steven Brunwasser

IRB#: N/A

Abstract: Background: Mental health problems are alarmingly common on college campuses (ACHA, 2020). The transition to college might be an important intervention window as students show increasing levels of stress and depressive symptoms during their first semester (Brunwasser, 2012). International students and students of color represent an increasing portion of the US college population and face unique challenges that may increase risk for poor mental health outcomes (Duffin, 2020). Method: Using data from a longitudinal cohort study (N=346), we evaluated perceived stress trajectories during students' first semester at a large university. Five monthly assessments were conducted from August through December. We hypothesized that international students (n=44, 13%) and students of color (n=115; 33%) would report greater increases in perceived stress. Results: Overall mean perceived stress levels increased sharply from August-October ($b=0.04$, 95% CI [0.02, 0.05]), with increases plateauing from October-December. We did not find evidence that international students differed from their peers in either their levels of stress. Students of color diverged from their white counterparts during the second half of the semester, reporting continued increases ($b=0.04$, 95% CI [0.01, 0.04]) while white students' perceived stress levels remained stable ($b=-0.004$, 95% CI [-0.01, 0.01]). Discussion: These findings suggest that students of color report greater increases in perceived stress during the transition to college. Future research should evaluate the efficacy of prevention programs tailored for students of color during this period of increased vulnerability.

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Title: *An Evaluation of Visual Schedules to Treat Vocal Stereotypy*

Authors: Phoebe Leach, Giovanna L. Salvatore, & Sherah Somervell

Student Presenter: Phoebe Leach

Program: BA in Psychology and Sociology

Advisor: Dr. Christina Simmons

IRB#: Pro2018002421

Abstract: Vocal stereotypy is often maintained by automatic reinforcement and treated with response interruption and redirection, competing stimuli, or differential reinforcement. The current study compared the effectiveness of an in-home electronic versus paper visual schedule in treating vocal stereotypy related to time for a 9-year-old with autism. An extended ignore and alone functional

analysis (FA) identified vocal stereotypy as an overt versus covert behavior. A multielement FA measured rates of stereotypy in ignore, attention (i.e., contingent discussion of time), and control (i.e., continuous discussion of time) conditions. Results suggest that vocal stereotypy was likely maintained by access to information regarding time, persisting with extinction. Baseline rates of vocal stereotypy were extremely high (M = 191.39 per hour) and accompanied by negative vocalizations and aggression when not reinforced. An electronic (iPad) and standard paper visual schedule with attention extinction (i.e., not responding to statements about time) were introduced using a reversal design. Rates of vocal stereotypy were higher with the electronic (11.94 per hour) versus paper schedule (7.5 per hour). A preference assessment indicated the participant's preference for the electronic schedule (5 of 6 selections), with the final electronic schedule phase yielding a 94.65% reduction from baseline (M = 10.24 per hour).

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Title: *Heuristic Evaluation of Campbell Library Website*

Authors: Tavis Baylor, Olivia McGough, & Matthew Ungerer, BA

Student Presenter: Tavis Baylor

Program: BA in Psychology

Advisor: Dr. Patrice Tremoulet

IRB#: N/A

Abstract: Three undergraduate students participated in a heuristic evaluation to assess the usability of Rowan Campbell Library's website. Heuristic evaluation is an analytical technique that employs usability heuristics, which are user interface design best practices, to identify potential issues. More specifically, evaluators look for violations of the heuristics and determine if those violations negatively impact usability. Participants in the library website evaluation used a standard set of ten usability heuristics developed by Jakob Nielsen in the 1990s to identify both potential usability issues and positive features of Campbell Library's website. Then they assigned severity ratings to the potential issues using a 4 point scale. Results indicate that the library website is fairly easy to use but could be improved.

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Title: *The Assessment of Desensitization and Aggression as Factors Related to Violence from Video Games*

Authors: Nicoloy McGrath, Tara Oster, & Lauren Vitale

Student Presenter: Nicoloy Mcgrath, Tara Oster, Lauren Vitale

Program: BS in Psychological Science

Advisor: Dr. Lisa Abrams

IRB#: PRO-2020-200

Abstract: The purpose of the current study is to investigate how violence in video games is related to an individual's desensitization toward violent images and their aggression. Our hypotheses are [1] the more time people spend playing violent video games, the higher levels of desensitization and [2] people who spend more time playing violent video games also have higher levels of aggression. The study uses a cross-sectional, correlational design. The survey consists of the Buss & Perry Aggression Questionnaire to examine the relationship between the use of violent video games and aggression. Randomized violent and neutral images are used in the study's survey to assess participants desensitization to violence. Results will be discussed. If it is true that violent video games are related to higher levels of aggression or desensitization, it would indicate the need for more widespread awareness on the possible negative effects of violent video games and help provide information for creating more accurate rating systems for video games based on different types of violence.

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Title: *Health Behaviors Among Recreational Drug Users and Non Users*

Authors: Christian Grant & Paige Ryan

Student Presenter: Christian Grant, Paige Ryan

Program: BS in Psychological Science

Advisor: Dr. Lisa Abrams

IRB#: Pro-2020-199

Abstract: When it comes to the trends and habits of drug users, there is very little pre-existing literature which covers proclivity of drug users to engage in positive health behaviors. In the present study we hypothesize that recreational drug use will be related to participation in negative health behaviors including poor nutrition, lack of physical exercise, and lack of proper sleep. It is also hypothesized that recreational drug users will be less likely to engage in positive health behaviors such as proper nutrition, exercise, and sleep habits. To test our hypothesis we have administered the Pittsburgh Sleep Quality Index, the International Physical Activity Questionnaire, the Healthy and Unhealthy Eating Behavior Scale, the Patient Health Questionnaire, the Academic Success Skills Survey, as well a researcher-developed questionnaire that determines drug type and frequency of use. Results will be discussed. If it is true that drug users are more likely to engage in negative health behaviors, and less likely to engage in positive health behaviors, the present study results would inform future studies and interventions for prevention and rehabilitation programs to provide aid to drug users and support their overall health and wellbeing.

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Title: *Analyzing Commonly Used Conceptualizations of Sexual Orientation - Sexual Orientation Study*

Authors: Giuliana Caprara, Valerie Humphreys, & Khanh Pham

Student Presenter: Giuliana Caprara, Valerie Humphreys, Khanh Pham

Program: BS in Psychological Science

Advisor: Dr. Lisa Abrams

IRB#: PRO-2020-217

Abstract: Sexual orientation is frequently measured by sexual identity, sexual behaviors and sexual attraction, yet little is known about the sufficiency of these measures in relation to a person's overall orientation. The purpose of this study is to re-evaluate the prevailing measures used to describe sexual orientation and to assess their effectiveness in representing current sexual identity labels. We hypothesize these constructs will not accurately align with an individual's sexual orientation, however, an individual's identified sexual identity will generally be concordant with their sexual attraction. Participants completed a survey measuring their self-labeled sexual identity, sexual orientation, sexual attraction, and sexual behaviors in the past three years. The Gender Inclusive Scale was a 7-point Likert scale that inquired each participant's sexual orientation, the Sexual Behavior and Orientation Scale documented participants' sexual behaviors in the past three years, and questions from the Kinsey Scale assessed participants' sexual attractions. Sexual identity was measured with a researcher-generated question asking participants to self-identify their preferred sexual identity labels. This question includes a check all that apply format with answer options including, but not limited to, heterosexual, homosexual, bisexual, pansexual, asexual, and a write-in response option. If there is discordance between sexual identity and sexual attraction, sexual behavior, or sexual orientation, then sexual identity is not an accurate measure of sexual orientation and its components, and the current system of sexual identification needs to be re-examined. In re-examining sexual identification, researchers need to explore new ways to accurately measure and sufficiently describe sexual orientation.

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Title: *Drinking Motives as Mediators of Prospective Associations Between College Alcohol Beliefs and Drinking Outcomes*

Authors: Faith Shank MA, Jonathan Gamutan, Angelo M. DiBello PhD, Nadine. R. Mastroleo PhD, & Kate. B. Carey PhD

Student Presenter: Jonathan Gamutan, Faith Shank

Program: BS in Psychological Science, MA in Psychology

Advisor: Dr. Chelsie Young

IRB#: N/A

Abstract: Alcohol use and its associated harmful consequences are common among college students. College alcohol beliefs, the extent to which college students perceive drinking is an integral part of the college experience, are associated with drinking. Few studies have examined potential mediating factors linking college alcohol beliefs to alcohol use. We propose that this association may be mediated by drinking motives. Drinking motives are common determinants of drinking, and include drinking for coping, social, enhancement, and conformity reasons. We hypothesized that college alcohol beliefs would be associated with alcohol use and problems through drinking motives. The current study tested these hypotheses in a secondary analysis of data among students who violated campus alcohol policies (N=373; 46% female). The study consisted of a baseline and intervention session, and follow-up assessments at 1- and 3-months post-intervention. All models controlled for sex and baseline levels of drinking outcomes. We ran two mediation models to test our hypotheses, one with drinking as the outcome and one with problems as the outcome. Results revealed that college alcohol beliefs were associated with changes in alcohol use and this was mediated in part through social motives for drinking. Similarly, college alcohol beliefs were associated with changes in alcohol-related problems and this relationship was partially mediated by social motives for drinking. The remaining motives did not mediate these associations. These findings provide insight into one mechanism explaining the relationship between college alcohol beliefs and drinking and problems and affirms college alcohol beliefs as a target for future brief interventions.

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Title: *Does Decentering Mediate the Relationship Between Mindfulness and Stress and Anxiety?*

Authors: Hana Lee, BA

Student Presenter: Hana Lee

Program: PhD in Clinical Psychology

Advisor: Dr. Jeffrey Greeson

IRB#: Pro2017001693

Abstract: INTRODUCTION: College students face myriad stressors which can increase their risk for mental health conditions, such as anxiety. Decentering is a mechanism by which mindfulness can promote better mental health. Research suggests facets of mindfulness, like Nonjudging and Nonreactivity, are involved in regulating emotions, which can reduce distress. The present study examined whether decentering mediates the relationship between Nonjudging and Nonreactivity, and stress and anxiety.
METHOD: Undergraduate students (n=534) were recruited for a cross-sectional, online survey study. We hypothesized that Nonjudging (NJ) and Nonreactivity (NR) will have a negative indirect effect on stress and anxiety through decentering, controlling for, sex, race, and previous meditation experience.
RESULTS: The indirect effect of NJ on both stress (b = -.43, 95% CI = -.56, -.32) and anxiety (b = -.44, 95% CI = -.60, -.30) was mediated by decentering. The significant direct effect of NJ on stress (b = -.71,

se = .09, $p < .001$) and anxiety ($b = -1.27$, $se = .13$, $p < .001$) indicated partial mediation. The indirect effect of NR on stress ($b = -.39$, 95% CI = $-.58, -.21$) and anxiety ($b = -.47$, 95% CI = $-.70, -.27$) was also mediated by decentering. The nil direct effect of NR on stress ($b = -.01$, $se = .11$, $p = .91$) indicated full mediation, whereas the direct effect of NR on anxiety ($b = .26$, $se = .17$, $p = .12$) was attenuated but not eliminated, indicating partial mediation.

CONCLUSION: Cultivating Nonjudgment and Nonreactivity can likely help facilitate decentering and thereby reduce stress and anxiety.

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Title: *Undergraduate Students' Familiarity of and Opinions on Major Social Movements Over the Past Decade (2010-2020)*

Authors: Gabriel Ruscansky & Jonathan Gamutan

Student Presenter: Gabriel Ruscansky

Program: BS in Psychological Science

Advisor: Dr. Lisa Abrams

IRB#: PRO-2020-86

Abstract: The purpose of this study was to determine the relationships between a person's familiarity of social movements and opinions of social movements and their anxiety, depression, political affiliation (PA), religious affiliation (RA), race, and ethnicity in the undergraduate population between 18-24 years old. It was expected that both PA and RA were significantly related to familiarity and opinions on protesters over the past decade. Researchers also expected participants whose race or ethnicity was related to major social movements would have a greater familiarity and stronger opinions of them. Researchers designed a survey for all consenting and criteria-meeting participants to complete which included the CES-D and GAD-7 inventories. Results will be discussed. The findings in this study could prove helpful to both social movements and political bodies for better understanding our demographics' current familiarity with and opinion on major events.

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Title: *Predictors of Physical Health and Quality of Life in Autistic Adults*

Authors: Jared K. Richards & BS, Sarah E. Transue, BA

Student Presenter: Jared Richards, Sarah Transue

Program: BA in Psychology, BS in Psychological Science

Advisor: Dr. Katherine Gotham

IRB#: Pro2019000852

Abstract: Autistic adults tend to report increased physical health issues and decreased quality of life (QoL) compared to neurotypical peers. Recent findings suggest that autistic women may be susceptible to poorer QoL and physical health than autistic men; it is unclear how this relates to evidence that autistic women are underdiagnosed or diagnosed later in life in comparison to their male peers. We aimed to examine whether birth-assigned sex and age of first autism diagnosis were associated with physical health symptoms and QoL in a large autistic adult sample. $N=749$ autistic adults (age 18-46 years, $M=31$ years; $n=473$ females; mean age of autism diagnosis= 19.64 years) were recruited to complete online questionnaire batteries as part of a larger study. Questionnaires included the Patient Health Questionnaire (PHQ-15), World Health Organization Quality of Life assessment (WHOQoL-BREF), and the Autism-Specific Quality of Life assessment (ASQoL). Linear regression models were used to examine whether sex, age of autism diagnosis, and their interaction predicted PHQ, WHOQoL, and ASQoL scores. Female sex was associated with greater PHQ scores and lower ASQoL scores. Additionally, later age of initial autism diagnosis was associated with lower WHOQoL and ASQoL scores. These findings suggest that detecting ASD earlier in life may provide long-term benefits that

lead to better quality of life in adulthood. More research is needed to understand the mechanisms by which autistic women (vs. men) may experience poorer physical health and more difficulties related to autistic status.

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Title: *Usability Testing of TrachAlarm, A Novel Medical Device*

Authors: Jena Mota

Student Presenter: Jena Mota

Program: BA in Psychology

Advisor: Dr. Patrice Tremoulet

IRB#: N/A

Abstract: A Tracheostomy, a fairly common medical procedure, is often a lifesaving intervention (Ab et al 2018). All patients with tracheostomies are at risk of decannulation - an event in which the trach becomes dislodged or removed accidentally – this could lead to severe consequences such as hypoxia, cardiac arrest, and death (“TrachAlarm,” 2020). To help prevent these adverse events Innovations Unlimited (IU) is developing a novel biomedical device called TrachAlarm, aimed to alert providers and caretakers of tracheal dislodgment. An early prototype of the TrachAlarm was usability tested by 15 nurses who performed 4 tasks: Training, Set-Up, Usage/Alarm Response, and Questionnaire Response. All participants were able to set up the device without issue after training. In addition, all participants could hear the TrachAlarm and were able to respond on average in under 4 seconds (“TrachAlarm,” 2020). A second usability test is planned for the spring of 2021, and it will be followed by a Human Factors Validation Study, as a part of the clinical trial in late 2021 or early 2022. Protocols for the second usability test will be similar to the initial test and will include both clinicians and lay people who are familiar with tracheostomies. The outcome from the second usability test will help finalize the device design and device training. After both the second test and design updates are completed recruitment (n=30; 15 clinicians, 15 non-clinicians) will begin for the Human Factors Validation Study.

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Title: *The Role of Optimism in Associations among Depressive Symptoms, Drinking and Problems in College*

Authors: Alexcia Aris & Rohini Pandey

Student Presenter: Rohini Pandey

Program: BA in Psychology

Advisor: Dr. Chelsie Young

IRB#: 14334-02 at the University of Houston

Abstract: Alcohol use always holds negative consequences especially among college students. This research focuses on the role of optimism as a buffer between depressive symptoms, drinking and problems in college to study if optimism may weaken the positive associations between depressive symptoms drinking & alcohol-related problems.

Faculty Research Descriptions 2021

Dr. D.J. Angelone & Dr. Meredith Jones

The ASSeRT (Aggression, Substance, and Sexuality Research Team) Lab

ASSeRT (Aggression, Substance, and Sexuality Research Team) is a collaborative laboratory where undergraduate and graduate students work together to conduct research under the co-mentorship of Drs. DJ Angelone and Meredith Jones. Dr. Angelone's primary research interests focus on sexual violence and risky sexual behaviors with secondary interests in PTSD, substance use, and prevention interventions. His specific expertise centers on developing and utilizing laboratory analogues to empirically examine factors related to sexual violence perpetration and victimization. He also developed an alcohol administration laboratory to facilitate the understanding of intoxication as a precursor to sexual decision-making. Dr. Jones' primary research interests center on promoting healthy romantic relationships and sexual risk behaviors among female-identifying adolescents and young mothers. She is also working to identify barriers and facilitators to healthcare for young mothers and their children. Our students benefit from having two faculty mentors with overlapping interests, as described below. We work with undergraduate students who are interested in gaining research experience. For more information, check out our website: <https://www.rowanassert.com/> and social media platforms: @RowanASSeRT (Twitter) and @rowanassert (Instagram).

<i>Doctoral Students</i>	<i>Graduate Students</i>	<i>Undergraduate Students</i>	
Nicki Cantor	Zachary Short	Theresa Coutinho	Kristen Wolfe
Ebru Yucel		Nia Tift	Giuliana Caprara
Danika Charles		Nicolay Mcgrath	Valerie Humphreys
Corey Doremus		Kehinde Bolaji	Teddy Oliver
Lauren Wallace		Parinita Thavanati	Gabrielle Green-Smith
Alexandra Nicoletti			

Dr. Danielle Arigo

The CHASE (Clinical Health And Social Experiences) Lab

The Clinical Health And Social Experiences (CHASE) research team focuses on understanding psychological and social influences on health and health behavior, particularly among women. We use scientific methods to understand how these influences work in the natural environment and how we can harness them to design, adapt, and improve behavior change interventions to promote physical activity, healthy eating, positive body image, and effective management of stress and chronic illness. We're especially interested in digital health interventions that integrate tools such as social media, smartphone apps, and wearable physical activity monitors. Learn more at <https://drarigo.wordpress.com/>.

<i>Postdoctoral Fellows</i>	<i>Doctoral Students</i>	<i>Graduate Students</i>	<i>Post-Baccalaureate Students</i>	<i>Undergraduate Students</i>
Dr. Cole Ainsworth	Kristen Pasko Laura Travers Megan Brown	Emily Vendetta	Ahmad Hussein	Bernard Kwiatek Heather Mulvenna Samuel Hart Kristen Edwards

.....
Dr. Thomas Dinzeo

The RUSSL (Rowan University's Schizophrenia-Spectrum Lab)

The Rowan University Schizophrenia-Spectrum Lab (RUSSL) focuses on the schizophrenia spectrum, including schizotypy. We are interested in understanding what factors contribute to the development or maintenance of schizophrenia spectrum symptoms. In examining schizotypy, we have looked at neurocognitive functioning, lifestyle and health behaviors, the influence of adverse childhood experiences, the formation and maintenance of delusional beliefs, and reward sensitivity. For clinical research, we have formed connections with a number of local outpatient treatment centers examining cognitive remediation. Most recently we have received grants to examine interventions for Parkinsonian symptoms for those with schizophrenia. Additionally, we are collaborating with multiple teams in the development of a novel smoking cessation intervention.

<i>Graduate Students</i>	<i>Undergraduate Students</i>
Francesca Crump	Megan Cartier
Devin Massaro	Olivia McGough
Tom O'Kane	Jillian Milan
Sherry Pujji	Madalyne Phillips

.....
Dr. Dustin Fife

Statistics Research Lab

Most statistical procedures assume (explicitly or implicitly) that samples were obtained using random selection. Rarely is this the case in psychology, where convenience samples are frequently used. My research aims to discover how convenience sampling biases parameter estimates and how we can recover population parameters from biased samples. It turns out, if we consider non-random selection as a "missing data" problem, solutions are possible.

<i>Graduate Students</i>
Tom O'Kane

.....
Dr. Jeffrey Greeson

The Mindfulness, Stress & Health Lab

The Mindfulness, Stress & Health (MSH) Lab conducts interdisciplinary research that brings together psychology, medicine, biology, and neuroscience to study the physical and mental health benefits of mindfulness. There are many core qualities of mindfulness, including attention, awareness, acceptance, and the ability to respond versus react to stress. Our lab aims to better understand the relationship between being mindful & being healthy. To do that, we use different types of studies, including: survey

questionnaires; lab experiments to measure stress responses, meditation, and relaxation; clinical trials to test the effectiveness of mindfulness training; and correlational studies to look for links between mindfulness and various measures of stress, health, and psychological well-being. To learn more, visit: <https://www.mindfulnesslab.org/>

<i>Doctoral Students</i>	<i>Undergraduate Students</i>
Gabrielle Chin Emma McBride Hana Lee	Kora Clauser Ben Schnur

.....
Dr. Jim A. Haugh

The R.O.A.D. (Research on Anxiety and Depression) Lab

The team focuses on the development and the treatment of depressive disorders, anxiety disorders, and the presentation of comorbid depression and anxiety. I have explored a number of specific psychosocial factors related to the etiology of depression, such as problem-solving abilities, social support, ruminative response styles, coping, personality/schemas, and automatic thinking. In addition, I am interested in the role of such psychosocial factors in the prediction of specific disorders that are commonly comorbid with depressive disorders or symptoms. As a result, I continue to work on understanding the role of underlying belief systems (schemas), coping, temperament, and parenting in depression and anxiety. With regards to treatment, I am interested in the psychotherapy process and outcome research. This research has included examining factors related to treatment progress, the use and effectiveness of bibliotherapy (self-help), and exploring the role of treatment preference in predicting therapeutic alliance, adherence, motivation, and clinical outcome.

<i>Doctoral Students</i>	<i>Undergraduate Research Assistants</i>	<i>Junior Research Assistants</i>
Juliana D'Onofrio Krista Herbert	Danielle Schweitzer Emma Keating Katelyn Santostefano	Matthew Iacoviello Shania Terry Karla Polanco
		Abigail Charpentier Abigail Riehman Harry Adams Kevin Ruelan Leslye Salazar Khanh Pham
		Nicholas Skoglund Selina Gonzalez Sofia Kolojeski Theodore Martin Tyler Schulz

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Dr. Gerald Hough

Avian Cognition and Communication Lab

My areas of interest center around how birds (and by extension, people) learn navigational maps in their world, and how these maps change across the lifespan. These research projects include investigating the neurobiology of bird behavior, with a specific focus on the navigational abilities of homing pigeons and language evolution in Hawaiian honeycreepers. I perform both behavioral and physiological investigations of these phenomena using behavioral, bioacoustic, and tracking experiments. Ongoing projects include the effects of rotating landmarks on the food searching behavior of homing pigeons, the effects of landscape differences on the homing abilities in homing pigeons, and the differences in 'Amakihi' songs across several islands in Hawaii.

Dr. MaryLouise Kerwin & Dr. Michelle Ennis Soreth

Center for Behavior Analysis

At the Center for Behavior Analysis at Rowan University, Drs. Kerwin and Soreth conduct a variety of collaborative research projects that have in common the use of behavioral principles as the basis for understanding and managing/treating behavior. Research projects focus on parent-implemented interventions, behavioral interventions for children with autism, and assessment and treatment of gastrointestinal and feeding problems in children.

Dr. Bethany Raiff

The HABIT (Health and Behavioral Integrated Treatments Research Unit) Lab

Dr. Raiff's primary research activities involve developing and testing behavioral economic interventions for promoting smoking abstinence, medication adherence, and other health behavior. Some of Dr. Raiff's current projects involve: (1) evaluating a videogame-based smoking cessation intervention for delivering virtual incentives contingent on objective evidence of smoking abstinence in adult smokers, (2) increasing adherence with medication assisted treatment among people with opioid use disorder recruited in an emergency department bridge program, (3) exploring strategies to measure and increase demand for physical activity in sedentary adults, (4) developing and testing a remotely delivered smoking cessation intervention for people with schizophrenia that combines financial incentives with acceptance and commitment therapy, (5) pilot testing a remotely delivered, financial incentive intervention for young adult electronic cigarette users, and (6) evaluating the reinforcer pathology theory among individuals with opioid use disorder. Previous research has involved evaluating novel interventions for promoting adherence with blood glucose testing among adolescents with Type 1 diabetes. Dr. Raiff has received a number of grants from the National Institutes of Health and from Rowan University to conduct this important research.

<i>Doctoral Students</i>	<i>Post-Baccalaureate Students</i>	<i>Undergraduate Students</i>
Connor Burrows Matthew Dwyer Caitlyn Upton	Schylar Newman	Maeve Donnelly Natalie Donisi

Dr. Christina Simmons

The SAFE Behavior Lab (Social Acceptability and Functional Evaluation of Behavior)

My work focuses on the assessment and treatment of severe behavior in individuals with autism spectrum disorder and other developmental disabilities. My overarching research interest is the promotion of socially valid outcomes for children and adolescents who engage in severe behavior (e.g., aggression, self-injury, property destruction). Toward that goal, I am exploring how to best facilitate caregiver involvement in the assessment, treatment, and maintenance of treatment effects through research comprising three areas: (a) refinements to the assessment of problem behavior, (b) parent and teacher training in behavioral interventions, and (c) implementation of evidence-based practice across settings. Current research projects focus on developing novel indirect and direct assessment

measures to identify tasks that evoke problem behavior, evaluating alternative instructional methods that do not rely on physical guidance, and examining how to most effectively increase the amount of time children can appropriately wait to access functional reinforcers (e.g., attention, tangible items).

<i>Doctoral Students</i>	<i>Post-Graduate Students</i>	<i>Undergraduate Students</i>	
Giovanna Salvatore	Kimberly Ford	Rianna Alvarado	Taylor Pankiewicz
Abigail Moretti	Sherah Somervell	Alyssa Barilaro	Michelle Ramirez
		Marlee Chesler	Jenna Richards
		Mekhi Garvin	Olivia Scattergood
		Christian Grant	Lucas Spada
		Phoebe Leach	Theo Sulton
		Emily Mastronardi	Lyndsey Vito

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Dr. Chelsie Young

The REACH (Rowan Emotions, Alcohol, and College Health) Lab

The REACH lab broadly explores factors related to social, emotional, and cognitive processes that are associated with both substance use and behavior change. Our work aims to understand social influences such as norms and motivations for engaging in substance use, develop and evaluate innovative brief intervention strategies, and better understand for whom particular interventions are best suited. Some of our current projects include investigating factors that influence and explain the positive association between alcohol use and physical activity, evaluating the influence of norms and attitudes on engagement in health risk behaviors, examining contextual cues surrounding event-specific alcohol use and consequences following heavy drinking events (e.g., Mardi Gras, Halloween, homecoming), and analyzing qualitative data to discover what differentiates a positive drinking occasion from a negative drinking occasion and exploring themes in hangover symptoms and supposed “cures”.

<i>Graduate Students</i>	<i>Post-Baccalaureate Students</i>	<i>Undergraduate Students</i>
Faith Shank	Erik Bollendorf	Jonathan Gamutan
	Tia Rodgers	Merrin Joseph
		Yesenia Rijo-Morales
		Paige Ryan
		Rohini Pandey

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Dr. Patrice Tremoulet

The IDEAS (Interaction Design and Engineering for Advanced Systems) Lab

The Interaction Design and Engineering for Advanced Systems (IDEAS) lab takes human perceptual, cognitive, and physical abilities and limitations into account when designing and assessing products, environments, and training, with the goal of improving efficiency, effectiveness, safety, and/or human performance. Our diverse, multi-disciplinary team includes students from a variety of majors. The IDEAS lab specializes in applying human factors techniques to help vulnerable populations including patients, children, the elderly and individuals with disabilities. There are three active research thrusts in the IDEAS lab: 1) Improving the quality of documents produced by electronic health records (especially documents about pediatric and elderly patients), 2) Enabling more efficient, effective, and satisfying patient care, by improving the technologies used by healthcare providers, and 3) Exploring how

intelligent technologies can be designed and applied to improve the health, safety, and well-being of adults with disabilities

<i>Undergraduate Students</i>	
Olivia McGough	Jaya Russell
Christian Grant	Michael Onu
Tavis Baylor	Jena Mota
John Tyler Kurtz	Matthew Ungerer
Elizabeth Meyeroff	Ryan Stroka

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Dr. Steven Brunwasser

The PrevSci Lab (Prevention Science Laboratory)

Our lab, in the Rowan University Department of Psychology, conducts research aimed at preventing chronic health conditions. To that end, we have four specific areas of focus:

- 1) Risk identification. Identifying individuals at elevated risk for health problems and in greatest need of preventive services.
- 2) Etiology. Identifying modifiable processes that contribute to the development of chronic health conditions.
- 3) Intervention. Developing, evaluating, and implementing interventions targeting etiological factors that contribute to chronic health conditions in real-world settings.
- 4) Research synthesis. Conducting quantitative reviews to evaluate the strength of evidence for key etiological theories and preventive interventions.

<i>Doctoral Students</i>	<i>Undergraduate Students</i>
Nicole Kelso	Camila Mira
Anisha Satish	Arianna Abulevsko
	Violet Terwilliger

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Dr. Jonathan Lassiter

SPIRiT Lab (Spiritual and Psychological Intersectionality in Research and Thought)

The Spiritual and Psychological Intersectionality in Research and Thought (SPIRiT) Lab uses qualitative and quantitative methods, grounded in Afrocentric psychology, to investigate health inequities among racial and sexual minorities. Current projects focus on: (a) Black same-sex couples relationship qualities and health, (b) spirituality-health research with Black sexual minority men, and (c) culturally-specific mind-body interventions for Black men. Students will be integral in (a) conducting literature searches and reviews; (b) participant recruitment, enrollment, and retention; (c) managing datasets; and (d) scientific communications via social media. Students who are passionate about racial and sexual minorities' health and interested in learning both western and non-western psychological theories will do well in the lab.

<i>Doctoral Students</i>	<i>Undergraduate Students</i>
Kainaat Anwar	Nafisat Olapade Hunter Heberstreit Caitlin Clarke Nia Tift

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Dr. Katherine Gotham

The SEAHL Lab (Social, Emotional, and Affective Health Lab)

SEAHLab research focuses on how neural and psychological processes (emotion-processing, cognition, and social reward) interact to contribute to positive and negative health states. We ask questions such as:

How do our brains respond to emotional information? Then in turn, how does that affect our mood?

Do patterns in how we think about emotional information change the pathways between short-term affect and longer-term mood?

Does our level of interest in having social experiences affect our mental and physical health? What about the quality of those social experiences?

We believe that the answers to these questions will help us contribute to more effective interventions, particularly to treat or prevent depression in autistic adults.

<i>Postdoctoral Fellows</i>	<i>Doctoral Students</i>	<i>Post-Baccalaureate Students</i>	<i>Undergraduate Students</i>
Samantha Mattheiss	Erin McKenney	Jared Richards Sarah Transue	Megan Mason Jonathan Gamutan Christopher Pellegrino Trey Scull

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