

# MCNAIR SCHOLARS Program

Summer Research Symposium June 20, 2022 1:30 -5:45 pm Dina's Place & 114 DiGiorgio Campus Center Event will be live-streamed – See Daily Digest for Link

Est. Start	Presenter	Mentor	Winthrop McNair Summer Research Symposium – June 20, 2022 - Presentation Title	
1:30 PM	Dr. Leigh Poole, Dean of University College, International Center Director, & McNair Mentor - Welcome			
1:35 PM	Trey Wineglass	Dr. Joanna Jackson	Perceptions of the Current Nursing Shortage and Strategies to Increase Staff Retention	
1:45 PM	Spencer (Best) Bermudez	Dr. Monique Constance- Huggins	What Are the Barriers to Mental Health Usage by Low-Income Individuals: The Perspective of Service Providers	
1:55 PM	Samson Demissie	Dr. Brent Woodfill	How does the Clinton ConNEXTion Action Plan intend to improve the Quality of Life of Southside Rock Hill Residents?	
2:05 PM	Panel Q&A & Break			
2:20 PM	Evelyn Barrales	Dr. Adrienne Edwards	Cultural Influences on Gender Identity Development among Mexican American Women in Multigenerational Households	
2:30 PM	A'Niyah Choice	Dr. Adrienne Edwards	A Qualitative Examination of College Students' Perceptions of the Impact of Parenting Styles on Emotional Development	
2:40 PM	Nastajia Hamilton	Dr. Donna Webster Nelson	Adverse Childhood Experiences, Post-Traumatic Growth, & Social Support Predict Hypersexuality in College Students	
2:50 PM	Panel Q&A & Break			
	Sierra Burns	Dr. Merry Sleigh	Child and Adult Trauma, Imposter Syndrome, and Just World Belief	
3:05-4:00	Josie Chestnut	Dr. Kathleen West	Myths, Misconceptions, and Metaphorical Mountains; What Factors Keep Students From Seeking Mental Health Care?	
PM Poster	Olive Corby	Dr. Donna Webster Nelson	Personality Differences in Effectiveness of Emotion Regulation Following Autobiographical Recollections of Trauma	
Reception (114 Digs)	Logan Pender	Dr. Leigh Poole	Comparative Analysis of Higher Education Institutions' Financial Initiatives for Historically Underserved Students in Study Abroad	
	Ebonie White	Dr. Merry Sleigh	Adults' Empathy and Experiences with and Perceptions of Imposter Syndrome	
4:00 PM	1 Break for Poster Presenters			
4:15 PM	Courtney Miller	Dr. Nicholas Grossoehme	Characterization of the Interplay between Phosphorylation and Dimerization of RitR	
4:25 PM	Eric Walters	Dr. Jason Hurlbert	Expression and Purification of GeneM: A Novel Virulence Factor of Unknown Function from the Phytopathogen Clavibacter michiganensis	
4:35 PM	Brooke Jewell	Dr. Jason Hurlbert	Temperature Optimization, Purification and Future Characterization of CAIN55: the Bacteriophage- derived Protein	
4:45 PM	Panel Q&A & Break			
5:00 PM	Molly Quetel	Dr. James Hanna, Jr.	Reaction of Hydrazones with Potassium Organotrifluoroborates Through Photoredox Catalysis	
5:10 PM	Gabrielle Walker	Dr. Victoria Frost	Investigations of Nucleotide Modifications in Winthrop's Bacteriophage Collection	
5:20 PM	/ Panel Q&A			
5:30 PM	Dr. Cheryl Fortner, I	Pr. Cheryl Fortner, McNair Program Director - Gratitude, Pride, and Concluding Remarks		

Dina's Place



#### Scholar: Evelyn Barrales Mentor: Dr. Adrienne Edwards Presentation Category: Social Science Presentation Type: Oral

Title: Cultural Influences on Gender Identity Development among Mexican American Women in Multigenerational Households

Abstract: The purpose of this study is to understand how culture influences Mexican American women's gender identity development and how that development may differ among women living in multigenerational households. Dyadic interviews were conducted in Spanish with five dyads (N = 10) of Mexican American women living in the Southeast. All dyads were at least 18 years old and living in the same household. Data were analyzed using thematic analysis. Results will be interpreted and discussed through an integrated intersectional, Chicana feminist lens. The researcher practiced self-reflexivity to enlighten her understanding of how being a Mexican American woman, an undergraduate college student, and a dual language speaker give her privileges that her participants may not have. Additionally, self-reflexivity uncovered blind spots in her interpretation of the data. Findings indicate that gender identity development among Mexican American women in multigenerational households is characterized by an internal struggle. There are two major themes that demonstrate what this struggle looks like: preserving Mexican culture through Motherwork and making a change. The findings of this study will expand the field of family science by illuminating how culture, gender, and parenting intersect within the context of multigenerational households to influence gender identity development among Mexican American women, a population of women understudied among family scientists. Implications for family life educators will be provided.



Scholar: Spencer (Best) Bermudez Mentor: Dr. Monique Constance-Huggins

Presentation Category: Social Science Presentation Type: Oral

Title: What Are the Barriers to Mental Health Usage by Low-Income Individuals: The Perspective of Service Providers

Abstract: The low-income population is at a unique risk for poor mental health outcomes due to factors like upbringing and perceived status in contrast to others. Despite the increased risk, barriers continue to persist that may impact their mental health seeking-behavior and ability to access these resources when sought. The perspective of service providers, while invaluable, is largely unstudied within the current literature as most research has been focused on the perspective of low-income individuals. This current study aims to address this gap in knowledge through semi-structured interviews with service providers across York County, South Carolina. The interviews will then be dissected through thematic analysis to identify key barriers barring usage and how to solve these issues. The emerging themes discovered through this research, such as the cultural differences of the area and accessibility concerns, will shed light on the individual and structural barriers that exist and provide a strong basis for improving mental health services for those who are poor and vulnerable.



#### Scholar: Sierra Burns Mentor: Dr. Merry Sleigh Presentation Category: Social Science Presentation Type: Poster

Title: Child and Adult Trauma, Imposter Syndrome, and Just World Belief

Abstract: Trauma is a common human experience associated with many negative adult outcomes. We furthered this realm of investigation by examining potential adult outcomes that had not been previously explored. We hypothesized that childhood and/or adult trauma would predict higher levels of imposter syndrome and entitlement, as well as lower levels of belief in a just world and trust in authority. Adult participants responded to scales to measure their adverse child events, trauma, and hypothesized variables. Women, non-heterosexuals, and African-American adults experienced more adverse childhood events than their comparison groups. Women and non-heterosexuals reported more adult trauma as well. Matching our hypothesis, higher levels of child or adult trauma predicted lower levels of belief in a personal just world. Contradicting our hypothesis, trauma did not predict entitlement or trust in authority figures. Gender emerged as an important variable. In men, but not in women, increased trauma predicted higher levels of imposter syndrome. Traumatized men also had less belief in a just world for others, perceiving the world as generally, not just personally, unfair. This data adds to our understanding of the unique experiences of trauma survivors, a critical factor in establishing best practices to meet their needs.



Scholar: Josie Chestnut Mentor: Dr. Kathleen West

Presentation Category: Social Science Presentation Type: Poster

Title: Myths, Misconceptions, and Metaphorical Mountains; What Factors Keep Students from Seeking Mental Health Care?

Abstract: The primary purpose of this research is to gain a better understanding of what affects a college student's decision to seek counseling, through direct factors such as cost and location, as well as indirect factors that may influence stigma towards counseling, such as myths and misconceptions. Understanding these factors can better inform the process of education about mental healthcare, as well as dispel myths and doubts about the mental healthcare process. Students were sampled from Winthrop University (N=50) as well as the University of North Carolina Charlotte (N=24). Data was collected via a multi-part survey designed by West & Deeter (2021) and refined for this project. The survey was divided into three sections, titled "Seeking Mental Health Care", "Mental Health Care Thoughts", and "Mental Health Care Factors". The section "Seeking Mental Health Care" discussed students' likelihood to seek counseling within various hypothetical situations, and the section "Mental Health Care Factors" discussed direct factors that would affect decisions to seek mental healthcare. Statements included in the "Mental Health Care Thoughts" portion were presented as true/false questions and were primarily pulled from a document created by Southwest Minnesota State University discussing common misconceptions about counseling. (*Myths vs. Facts about Counseling, n.d.*)



# Scholar: A'Niyah Choice Mentor: Dr. Adrienne Edwards

Presentation Category: Social Science Presentation Type: Oral

# Title: A Qualitative Examination of College Students' Perceptions of the Impact of Parenting Styles on Emotional Development

Abstract: This study explores college students' perceptions of parenting styles and how they impact emotional development. Previous research has studied the effects of parenting styles on adolescent emotional development, but few studies have included college students (emerging adulthood). A qualitative examination was used by conducting one-on-one semi-structured interviews. My study intends to answer two research questions which are: What are college students' perceptions of how parenting styles affect emotional development, and what do college students think parents should do to support healthy emotional development. The results suggest a major theme of navigating parental impacts on emotional development, and two subthemes: repressing negative emotions and modeling appropriate ways to express emotions. College students believe that because of their parents parenting style, they repress negative emotions to avoid negativity, control emotions, fear dismissing emotions, and because they feel responsible for their parent's emotions. The second subtheme: modeling appropriate ways to express emotions. The second subtheme: modeling appropriate ways to express emotions. The second subtheme: modeling appropriate ways to express emotions. The second subtheme: modeling appropriate ways to express emotions. The second subtheme: modeling appropriate ways to express emotions. The second subtheme: modeling appropriate ways to express emotions. The second subtheme: modeling appropriate ways to express emotions. The second subtheme: modeling appropriate ways to express emotions. The second subtheme: modeling appropriate ways to express emotions, suggests that parents should lead by example, practice what they preach, and break the cycle to support healthy emotional development. The findings contribute to the field of developmental psychology by highlighting how parenting styles continue to influence emotional development into emerging adulthood.



#### Scholar: Olive Corby

Mentor: Dr. Donna Webster Nelson

Presentation Category: Social Science Presentation Type: Poster

Title: Personality Differences in Effectiveness of Emotion Regulation Following Autobiographical Recollections of Trauma

Abstract: Emotion regulation is a goal-directed psychological process whereby people manage their emotions (Hughes et. al 2020. It is essential for social competence and psychological well-being, especially after adverse experiences (Baranczuk, 2019). Cognitive reappraisal is an emotion regulation strategy that involves reinterpreting an upsetting event to downregulate emotions such as fear, sadness or anger (Gross & John, 2003). We wondered whether the ability to effectively leverage reappraisal would vary as a function of personality. Specifically, because reappraisal is an effortful process that requires motivation (Gutentag et al, 2016) we expected it to be predicted by the tendency to exert effort, as reflected by those high (versus low) in conscientiousness. Furthermore, because reappraisal involves cognitive restructuring (Vaughn-Johnston et. al, 2020), we expected it to be facilitated by an ability to see multiple perspectives, as is characteristic of those high (versus low) in openness. Finally, reappraisal is influenced by perceptions that emotions are controllable (Gutentag et al, 2016). We therefore expected those low (versus high) in neuroticism to invest more effort in reappraisal due to greater optimism about managing negative affect. Our participants wrote about a traumatic prior event and then were randomly assigned to either a control condition or a reappraisal condition in which they wrote about possible positive effects of their past trauma, such as learning new things or becoming more resilient. They then completed a series of emotion ratings. Results indicated that participants high in openness, high in conscientiousness and low in neuroticism reported less negative affect in the reappraisal, versus the control condition. This provides evidence that personality tendencies impact the effectiveness of emotion regulation processes. These findings contribute to a greater understanding of differential responses to trauma.

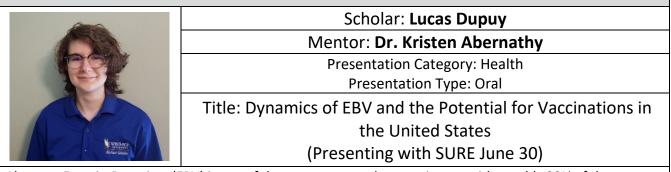


Scholar: Samson Demissie Mentor: Dr. Brent Woodfill Presentation Category: Social Science

Presentation Type: Oral

# Title: How does the Clinton ConNEXTion Action Plan intend to improve the Quality of Life of Southside Rock Hill Residents?

Abstract: The Southside Rock Hill community has faced neglect in comparison to other parts of Rock Hill. The Southside Community stretches from as far from the areas of Crawford Road, Saluda Street, and Albright Road of South Rock Hill. Historically, developments in Southside have been plagued by a lack of funding and commitment from leadership. In July 2021, the Clinton ConNEXTion Action Plan was presented to the community of Southside. It is a community-oriented economic development plan that involves various community members. A mixed methods approach is best suited to gather statistics to understand the basis of Southside quality of life; alongside investigating the depths to how quality of life affects residents. The aspects of quality of life that are included in this investigation are income, wealth, employment, mental health, physical health, food security, physiological security, leisure time, mobility, social belonging, and overall satisfaction. The findings and investigation from this project should influence the future of development, applied sociology and anthropology, and praxis; in development, initiatives must remain sensitive to the effects on communities. If economic development is done, the community that is affected should always be considered, informed, and communicated with; to ensure that their needs are being met from their perspective.



Abstract: Epstein-Barr virus (EBV) is one of the most common human viruses, with roughly 90% of the population in the United States carrying the virus by adulthood. EBV is spread through bodily fluids and infections tend to be asymptomatic, however in some cases EBV can lead to infectious mononucleosis (IM) and some cancers such as Hodgkin's lymphoma. Currently there is no approved vaccine, but clinical trials are in development. This study presents a mathematical model of EBV transmission, calibrated using data from the United States, to compare possible vaccine strategies with varying efficacies, duration, and age of vaccination.



#### Scholar: Nastajia Hamilton Mentor: Dr. Donna Webster Nelson

Presentation Category: Social Science Presentation Type: Oral

Title: Adverse Childhood Experiences, Post-Traumatic Growth, & Social Support Predict Hypersexuality in College Students

Abstract: Our goal was to examine whether suffering from sexual violence, domestic violence, and/or other emotional and physical trauma during childhood (known as ACEs) leads to unhealthy or destructive sexual behavior in adulthood. In fact, people who have suffered from ACEs are often further traumatized in adulthood through social rejection, disapproval, stigmatization, degradation, and negative evaluation as a result of these sexual behaviors. To understand the causes of this behavior and combat this issue, we hoped to replicate findings showing that ACEs increase risky sexual behavior and then extend this work to examine whether ACEs place a person at greater risk of hypersexuality as well. We also examined whether post-traumatic growth and social support mitigate these negative effects. Our results indicated that experiencing ACEs predicted more hypersexuality and risky sexual behavior, while post-traumatic growth predicted lower levels of hypersexuality. Social support did not predict hypersexuality or risky sexual behavior. However, greater social support was linked to more post-traumatic growth. In addition, we found that there was a significant effect of SES on the number of ACEs reported. Those identifying as somewhat poor tended to report the highest number of ACEs, while those identifying as upper middle class reported the lowest number. In addition, those with low SES also reported more risky sexual behavior and higher rates of hypersexuality. We also found a significant effect of parental education level on the number of ACEs reported. Those whose parents both graduated from college reported the fewest number of ACEs. In contrast, other demographic variables including age, gender, race, sexual orientation, and political alignment had no significant correlations with ACEs, hypersexuality or risky sexual behavior in our study. This suggests that economic and educational disadvantage rather than social identity creates risk of suffering from ACEs and their negative outcomes. Our findings increase our understanding of the impact of ACEs, as well as risk factors and potential avenues for mitigating some of the devastating effects of adverse childhood experiences.



#### Scholar: Brooke Jewell

Mentor: Dr. Jason Hurlbert

Presentation Category: Life Science Presentation Type: Oral

Title: Temperature Optimization, Purification and Future Characterization of CAIN55: the Bacteriophage-derived Protein

Abstract: CAIN55 is a gene identified from a bacteriophage that has been shown to be cytotoxic to mycobacterial species. The mycobacteriophage Cain, which acquires a total of 102 genes, is a member of the Siphoviridae family. Homology modeling of the translated amino acid sequence suggests that CAIN55 may be a cellobiohydrolase. Homology models showing CAIN55 to be a cellobiohydrolase have generally low confidence scores, leading us to believe that this result may be incorrect. Online programs such as Raptorx and Phyre2 were used to generate homology models for this project. CAIN55 has also been proven to bind to NusA, which is a transcription regulator. Uncovering the structure of CAIN55 may be able to tell us more about CAIN55's interaction with NusA, and thus, how CAIN55 helps regulate bacterial transcription. In this work, we have determined the optimum temperature for the expression of recombinant CAIN55 in Escherichia coli and attempted to purify the resulting recombinant protein from E. coli cultures using methods such as MCAC (Metal Chelate Affinity Chromatography). The purified protein will be used to determine the structure of CAIN55 by x-ray crystallography. The structure of the protein will be crucial for determining the function of the protein.



# Scholar: Courtney Miller

Mentor: Dr. Nicholas Grossoehme

Presentation Category: Life Science

Presentation Type: Oral

# Title: Characterization of the Interplay between Phosphorylation and Dimerization of RitR

Abstract: Iron is an essential micronutrient for nearly all organisms. This metal plays a critical role in a number of physiological processes due to its ability to readily cycle between the +2 and +3 charge states, a property that also makes it a liability to the cell. Consequently, organisms have evolved dedicated machinery to control the intracellular concentration of iron. Surprisingly, *S. pneumonia*, an important human pathogen, lacks a well-characterized iron sensing mechanism. The repressor of iron transport (RitR), a transcriptional regulator that represses the pneumococcal iron uptake operon, appears to play a key role in controlling iron levels. Its ability to regulate transcription is impacted by oxidation-induced dimerization and kinase-induced phosphorylation; the former results in strong repression while the latter signals derepression. This project aims to better understand the relationship between oxidation, phosphorylation, and transcriptional control by RitR. Currently, efforts are focused on establishing conditions that are ideal to stabilize the RitR dimer and characterizing the oxidation/dimerization reaction. Future goals will focus on (1) the DNA binding affinity for dimer vs. monomer, (2) the impact phosphorylation reaction and (3) how dimerization influences the ability of RitR to be phosphorylated.



Scholar: Logan Pender

Mentor: Dr. Leigh Poole

Presentation Category: Education Presentation Type: Poster

### Title: Comparative Analysis of Higher Education Institutions' Financial Initiatives for Historically Underserved Students in Study Abroad

Abstract: During academic year 2019-2020, the Institute of International Education's Open Doors Report1 showed the U.S. had less than 1% of total enrolled undergraduate students participating in study abroad. Disparities in study abroad undergraduate participation show that the majority of participants are Caucasian females. The focus of this study is to compare initiatives that offer relevant financial opportunities to increase the number of historically underserved students participating in study abroad. Working together, the U.S. government, education abroad organizations and HEIs have identified underrepresented student groups and created initiatives to diversify study abroad. Underrepresented student groups often include: race/ethnic groups, first-generation college students, high financial-need students, LGBTQIA+ students, gender orientation groups, and students with disabilities (Forum on Education Abroad, 2015).

While the study will mention these student groups and the barriers they face, the focus of this particular study is to build a critical foundation to explore financial initiatives within the following;

1) HEIs that are within my southeastern U.S. geographical parameters.

2) U.S. federal government such as the United States Department of State Bureau of Educational and Cultural Affairs.

By building this foundation, we begin to create an understanding of how historically underserved students' participation in U.S. study abroad is being addressed through various financial opportunities. Which bring awareness to the "Too Expensive" stigma that a majority of U.S. historically underserved students associate with financing study abroad.



#### Scholar: Molly Quetel Mentor: Dr. James Hanna, Jr.

Presentation Category: Physical Science Presentation Type: Oral

# Title: Reaction of Hydrazones with Potassium Organotrifluoroborates Through Photoredox Catalysis

Abstract: In previous studies, visible light promoted alkyl radical additions to imines, using organotrifluoroborates, were catalyzed by organic visible light absorbing compounds; the products,  $\alpha$ -aryl amines, are important pharmaceutical substructures. In this research study, the procedure was modified for the radical addition to hydrazones. The proposed products of this synthetic method are hydrazines, which are also important pharmaceutical subcomponents. In this research project, reactions of potassium isopropyltrifluoroborate with benzaldehyde-derived hydrazones will be initially explored to determine the best model compound for hydrazine synthesis. The reactions will be analyzed by thin layer chromatography (TLC), gas chromatography/mass spectrometry (GC/MS), direct analysis in real time/mass spectrometry (DART/MS), and <sup>1</sup>H NMR. After this optimization phase, additional reaction parameters such as solvent and photocatalyst will be evaluated. Of particular interest will be the use of water as a solvent in this protocol. Water is non-toxic, non-flammable, cheap, and readily available. Furthermore, potassium organotrifluoroborates are air and water stable, and are good candidates for radical precursors in aqueous conditions. Future studies will include the scope and limitations of the reaction of various potassium organotrifluoroborates with several differently substituted hydrazones to evaluate both electronic and steric effects on the reaction.



# Scholar: Gabrielle Walker

Mentor: Dr. Victoria Frost

Presentation Category: Life Science Presentation Type: Oral

# Title: Investigations of Nucleotide Modifications in Winthrop's Bacteriophage Collection

Abstract: Bacteriophages (phages), are viruses that replicate in bacteria and have co-existed with their host in a complicated, evolutionary arms race for approximately three billion years. Both partners continuously evolve attack and defense mechanisms to ensure their own survival. Bacteria employ an array of defense mechanisms, including a Restriction-Modification System that utilizes restriction endonucleases (REs) to destroy infecting phage. At the same time, phages can protect their genomes via noncanonical nucleobase substitutions that have the effect of "camouflaging" their DNA against RE recognition. The objective of this study was to reveal possible phage DNA modifications by comparing patterns of endonuclease cleavage of Winthrop's phages to virtual profiles of predicted endonuclease activity. To achieve this, we generated our own restriction digestion patterns in vivo, supplemented with previously uploaded images of Winthrop's phage digestion patterns at the Actinobacteriophage Database; phagesdb.org. For each phage we then used an in-silico tool, available at New England Biolabs (NEB), to generate virtual digestion patterns using the same suite of enzymes. Our results highlighted that several of our phages' DNA was blocked from digestion, especially those grouped in the EA cluster. These EA phages show resistance to similar REs, suggesting that phages within the same cluster may display similar DNA modifications. Further investigations are underway to reveal the specific modified bases present, and to identify modification similarities between phages within related or unrelated clusters. A greater understanding of this phenomenon is important due to the potential expansion of using phages in the fields of medicine, agriculture and biotechnology.



# Scholar: Eric Walters

Mentor: Dr. Jason Hurlbert

Presentation Category: Life Science Presentation Type: Oral

### Title: Expression and Purification of GeneM: A Novel Virulence Factor of Unknown Function from the Phytopathogen *Clavibacter michiganensis*

Abstract: GeneM is a novel virulence factor of unknown structure and function produced by *Clavibacter michiganensis*, the etiological agent of many diseases in agricultural plants. Tomato and potato plants containing the gene have shown signs of symptomatic necrosis, yet plants containing mutants of the gene were shown to be asymptomatic. In this work, we describe our efforts to model the structure of GeneM and express it in recombinant *Escherichia coli* cultures. Of the three algorithms used to generate a homology model of GeneM, only one gave us a plausible structure. *De novo* modeling using trRosetta gave a model that is structurally similar to the homology model. Expression trials were performed using different strains of *E. coli* including BL21, NiCo, and Rosetta 2, and based upon the results, cultures of *E. coli* BL21 Rosetta 2 (DE3) had a band at the expected size on SDS-PAGE gels. Large expression cultures were generated, and a chromatographic method was developed, involving MCAC, gel-filtration, and cation exchange to purify the GeneM for enzymological studies. Currently, we are developing an assay to determine if GeneM is a patatin as indicated by bioinformatic analysis.



Scholar: **Ebonie White** Mentor: **Dr. Merry Sleigh** 

Presentation Category: Social Science Presentation Type: Poster

# Title: Adults' Empathy and Experiences with and Perceptions of Imposter Syndrome

Abstract: The imposter syndrome, a feeling that one's successes are fraudulent, is common among marginalized groups, especially Black women. Although the imposter experience can be genuine, some researchers have argued that people may overestimate imposter syndrome in minority women and unfairly bestow the label on them. We examined adults' perceptions of successful women, varying in race, who were either overtly or indirectly described as experiencing imposter syndrome. Participants were randomly assigned to one of four experimental conditions in which they read a story about a highly educated Black or White woman who was explicitly described as, or implied to be, experiencing imposter syndrome. Participants reported their perceptions of the woman. Participants perceived the imposter label as appropriate for the Black woman. Participants who had imposter syndrome themselves connected with the Black imposter woman, perhaps suggesting that they felt the label fit her. Empathetic adults connected with the White woman should not need to feel like an imposter. These findings support our hypothesis that adults would perceive Black women as experiencing imposter syndrome but would report less empathy due to their implicitly biased expectations.



#### Scholar: Trey Wineglass

Mentor: Dr. Joanna Jackson

Presentation Category: Business Presentation Type: Oral

# Title: Perceptions of the Current Nursing Shortage and Strategies to Increase Staff Retention

**Introduction:** Nurses play an important role in population health, but the profession has been plagued by shortages for decades. Determining contributing factors to high turnover rates will allow nursing leaders to implement strategies that improve retention rates and health outcomes. **Method:** This study utilized a mixed-method concurrent triangulation design, including a synchronous but separate collection of qualitative and quantitative data, and results were compared. This study included cross-sectional primary data collection to examine work environment, future employment intentions, factors that influence employment intentions, and burnout among nurses. The qualitative component included key semi-structured key-informant interviews. Our sample included 204 survey participants and 5 interview participants. **Results:** Work environment, staffing, salary, and leadership has the greatest influence on nurses wanting to leave their job. Competitive wages & benefits and a healthy work/life balance has the greatest influence on nurses wanting to leave and stay at their job. **Conclusion:** Due to the nursing shortage it has affected nurses' ability to provide quality care to patients and cause burnout among nurses. Nursing leaders must create a healthy work environment, increase staffing, provide higher wages, and improve leadership.

#### Thank you

- To our Scholars who rose to every challenge this summer
- To our **Mentors** who continue to guide, support, teach, celebrate, and create opportunities for our Scholars
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