Presentation Type:
First Author/Presenter - Classification
First Author/Presenter - Name
First Author/Presenter - Department
First Author/Presenter - College/School
Second Author/Presenter - Name Second Author/Presenter - Department, Third Author - NameThird Author - Department, Fourth Author - NameFourth Author - Department,
Faculty Mentor - First Name Faculty Mentor - Last Name
Faculty Mentor - Department / Institute / Affiliation

TITLE :
Abstract (200 Words Max; MUST BE PRINT READY):

DRAFT

Oral
Graduate Student - Masters level
Jordan Boyer
Psychology
College of Arts, Social Science, and Humanities
Jonathan Livingston
Professor Psychology North Carolina Central University

TITLE :

Four to 12% households have a parent who has a chronic-illness (Kaasbøll et al., 2021). Chronic-Illness is defined as any conditions that persist for a year or more, require ongoing medical attention, or limit activities of daily living (Centers for Disease Control and Prevention, 2022). Previously, Landi et al. (2022) found that adults caring for sick parents had poorer mental health outcomes than same-aged peers who were not caring for a chronically-ill parent (in relation to the COVID-19 virus). The term parentification was developed by Ivan Boszormenyi-Nagy to describe deviations in generational boundaries with a child assuming roles and responsibilities that aren't age-appropriate. Instrumental parentification describes a child performing physical caretaking tasks for the household. Emotional parentification is the fulfillment of emotional or psychological needs for the household (Chase, 1999; Hooper, 2007; Jurkovic, 1997). The current study will investigate whether there are differences in parentification between individuals who cared for a chronically-ill parent during childhood and those who did not care for a chronically-ill parent. To understand these differences in parentification, 200 HBCU undergraduate students who reared a sick parent will be sampled. An independent-sample t-test will assess differences in instrumental and emotional parentification between individuals who cared for a chronically-ill parent during childhood and those who did not care for a chronically-ill parent. Given the increase in health disparities and COVID-19's impact, understanding the role of children who care for a chronically ill parent and the psychosocial implications of such care on the child across their lifespan are imperative.

DRAFT

Oral
Graduate Student - Masters level
Amber Brown
Psychology
College of Arts, Social Science, and Humanities
Dwayne Brandon
Psychology

TITLE : Realization as Resistance: Examining How Mindfulness Affects the Impact of Racism-Based Traumatic Stress

For Black people, experiences of racism—and subsequent race-based traumatic stress (RBTS)—can be associated with greater risks of conditions ranging from cardiovascular disease and diabetes to depression and anxiety and many other physical and mental health outcomes related to trauma. Research into the broader concept of trauma (largely defined by severe physical threats alone) has shown that dimensions of mindfulness significantly correlate to the reduction of traumatic stressor-related negative health outcomes. And further, mindfulness has been associated with posttraumatic growth (PTG) or improvement in psychological functioning after a struggle to overcome trauma. However, because etiology and population differences impact intervention effectiveness, the purpose of this study is to address the gap in research regarding dimensions of mindfulness and whether they interact with RBTS for Black people to effect both negative health outcomes and PTG after exposure to racist experiences. We will employ a cross-sectional survey and two-way MANOVAs to determine if there is an interaction effect between independent variables of mindfulness (either trait mindfulness, frequency of mindfulness practices, or racial concordance of mindfulness facilitators) and RBTS on the dependent variables of scores on measures of posttraumatic stress, depression, anxiety, and PTG.

DRAFT

Oral
Graduate Student - Masters level
Destinee Wormack
Psychology
College of Arts, Social Science, and Humanities
Dr. Jonathan Livingston Psychology, Dr. Kristen Bell-Adair Psychology, Dr. Sherry Eaton Clinical Psychology,
Dr. Jonathan Livingston
Psychology

TITLE : Assessing the Perception of the Medical Health Care Community across Race

Black women are dying of maternal mortality at four times the rate of any other race. The objective of my research study is to explore factors that may contribute to these higher maternal mortality rates. Surveys will be presented to Black women who have had a child within the past two years. Women meeting criteria will be given an informed consent, 30-45 minutes to complete all the surveys, debriefed, and lastly be given incentives and a referral sheet. Findings from my study may suggest the following: 1) There will be a statistically mean difference in perceptions of the medical healthcare community between women who report high and low levels of stress 2) Perceptions of racism will moderate the relationship between perceptions of the medical health care community and perceived stress 3) There will be a statistically significant difference in perceptions of the medical healthcare community across income level and 4) Perceptions of the medical health care community and annual pre-tax income combined will be better predictors of postpartum depression than either variable alone. The implications of this study involve advancement of research on determinants of maternal outcomes for Black women specifically and more awareness of biases among health care professionals.

DRAFT

Oral
Graduate Student - Masters level
Hibat Alla Gindeel
Department of Pharmaceutical Sciences
College of Health and Sciences
Ling Wu BRITE, Nailya Gilyazova BRITE, Jerry Wang Duke University Medical Center,
Bin Xu
Pharmaceutical Sciences

TITLE : Identification of new Phospho-tau Biomarkers for Alzheimer's disease diagnosis and differentiation

Robust and sensitive tools are needed to diagnose AD patients at early stage of the disease. Therefore, the discovery of novel biomarkers that may improve diagnostic sensitivity and selectivity and help to identify more therapeutic targets is considered an unmet need. The aim of this study is to find novel biomarkers that can differentiate AD dementia from non-AD dementias and differentiate MCI subjects from cognitively normal individuals.
We used a comprehensive posttranslational modifications (PTMs) map of tau protein in AD brain (Wesseling et al, 2020) and site-specific phosphorylated tau (p-tau) antibody screening to identify new epitopes for disease diagnosis and differentiation. One PTM of interest is the phosphorylation of tau residue at serine 356. Western blotting analysis was used to detect the presence of phospho-tau-S356 in the brain homogenate extracted from AD, non-AD, MCI, and rare tauopathies subjects. Then, ELISA was used to quantify the amount of phospho-tau-S356 in the brain homogenate of each subjects group.
Our research findings indicate that p-tau-S356 antibody can differentiate AD from non-AD. Moreover, it can also discriminate AD from rare tauopathies (PSP, CBD, and PID), and MCI from cognitively normal subjects. These findings suggest that p-tau-S356 may be a promising biomarker. Therefore, the next steps are to use further analysis to validate the new biomarker and to develop ultrasensitive test such as SIMOA to translate into accessible biospecimens such as CSF and plasma.
(This work is in part supported by a GLIAL Scholarship (R25MH129791) to HG and R01AG067607 to BX)

DRAFT

Oral
Junior
Talia Chavis
Public Health Education
College of Health and Sciences
Mentor: Anne-Lyne Verella, MPH, RD, WomenNC, RTI International Global Gender Center.

TITLE : Addressing Health Disparities: Can Black Women in Leadership be Part of the Solution?

Healthcare affects everyone because it is the cornerstone of society. Everyone has been to the doctor's office; however, some are able to go more than others. The COVID-19 pandemic exposed many disparities faced in healthcare. Black people are underrepresented in every field, especially in executive leadership. This disparity is shocking because Black women hold the most hazardous, low-paying jobs in healthcare and the world demographic is shifting. The following questions were considered to help guide the research process: why has this not been brought up in the past, what can be done about this problem, and where do we start? Advancing more Black women in leadership in healthcare will provide a fresh perspective on ways to improve the health of populations that face worse health outcomes. Medical mistrust is a barrier in why the treatment of Blacks differs from that of other groups. The methods used in this research was a literature review through research databases, transcripts of interviews, and news articles. I was able to find statistics that support the need for diversity in healthcare. I truly believe that increasing the number of Black women in healthcare leadership through mentorship programs will greatly diminish health disparities in America.

DRAFT

Oral
Senior
Melanie Kaye Moseley
Music
College of Arts, Social Science, and Humanities
Candace Bailey, Ph.D
Music/NCCU/Professor

TITLE : African American Folk Music: White Governance, Whitewashing, Black Shame, and Redemption of a "Damaged Tradition"

In 1925, Alain Locke proclaimed in his book, The New Negro, that "damage was done to the tradition" of Negro folk music. He states that this music was initially taken out of the original religious setting by the Negro himself. In spite of Locke's remark, research by Lerome Bennett (Before the Mayflower), Tera Hunter ("Sexual Pantomimes: Music and the Racial Imagination"), Leslie Alexander and Michelle Alexander ("Fear: The 1619 Project"), Wesley Morris ("Music" in The 1619 Project), and others indicates that the white policing of Black music, Blackface minstrelsy, and the whitewashing of Negro spirituals by white abolitionists have played momentous roles in the impairment of African American folk music. Here, I delve into the factors that contributed to the damage of Negro folk music. As I examine the use of control and fear to police African American music, the dismal and inhumane events that were diminished by the degradation and ridicule of America's first popular mass entertainment (Blackface minstrelsy), and the white savior complex of spiritual transcriptions by William Francis Allen, Charles Pickard Ware, and Lucy McKim Garrison in their 1867 Slave Songs of the United States, I will also describe the evolution of a tarnished tradition that influenced genres over the decades. Keywords: damage, folk music, policing, minstrelsy, white savior complex

DRAFT

Oral
Senior
Jordan Blais
Political Science
College of Arts, Social Science, and Humanities
Latrice Washington
Political Science/ NCCU/ Faculty

TITLE : **Is There a Better Way? Correlative Analysis on Education Policy in North Carolina**

For this research, the intended purpose is to highlight correlative analysis on the impact that targeted grant funded initiatives in public schools can have in reducing the overall numbers of incarcerated persons in a municipality. Though case studies will be cited, the work will mostly explore education policy and the effects of strategic grant-funded initiatives and overall per-capita spending in K-12 education on the rates of crime in an area. Rates of funding between municipalities will be contrasted. The research shows reasonable correlation can be made between the amount of funding allocated per primary level student and recidivism rates in a municipality. As I am a North Carolina resident, I will be primarily using and interpreting data specific to my home state.

The research shows it is reasonable to conclude there is systemic underfunding in North Carolina schools that disproportionately affect lower income brackets (students of color and those in rural districts primarily). Combined together, the difference in academic funding appropriated from higher-income to lower-income districts, zero-tolerance disciplinary policies, and a lack of community involvement in municipalities showcase a correlative relationship between per-capita funding within the K-12 public school system and rates of incarceration in the State of North Carolina.

DRAFT

Oral
Senior
Netanya Dennis
Psychology, Chemistry and Biochemistry
College of Arts, Social Science, and Humanities
Jonathan Livingston
Psychology, North Carolina Central University

TITLE : Neuropsychological Disorders in Minority Adolescents and Young Adults: The affect of Help Seeking Behaviors, Stigma and Race/Ethnic on Diagnosis and Treatment

Neuropsychological disorders (depression, anxiety, eating disorders, etc.) have been an increasing problem in adolescents (Mental Health America, 2022). Although there have been advances in treatment and diagnosis, the rates of health-seeking behaviors among people of color (Black, Latinx, Asian) have not increased much over the years. Cultural, religion, and access to services have been barriers to mental health helping-seeking behaviors among these groups. COVID-19 and the current social climate in America, have had neuropsychological disorders on the rise. The purpose is to investigate the prevalence of neuropsychological disorders among minority adolescents and young adults in America. This paper will highlight, the impact of help-seeking behaviors and stigma on mental health-related outcomes among this population. Moreover, the paper will discuss the issue of bias and cultural competence in clinical practice. This paper will aid mental health and human service practitioners understand the prevalence of neuropsychological disorders in the aforementioned population post covid and provide strategies to address health-seeking behaviors, and the need for socially competent mental health professionals.

DRAFT

Oral
Senior
Andrew Barber
Biomedical Science
College of Health and Sciences
Stephanie Brocke Toxicology, Weidong Wu Public Health, Ilona Jaspers Pediatrics,
Ilona Jaspers Pediatrics, UNC Chapel Hill

TITLE : Proinflammatory and Oxidative Stress-Related Effects of Particulate Air Pollution from Xinxiang, China on Human Nasal Epithelial Cells

Xinxiang, like many densely populated cities in China experiences high levels of ambient air pollution, specifically particulate matter (PM). Particulate matter, especially fine PM, causes upper and lower respiratory diseases as well as cardiovascular disease. We thus hypothesized that PM exposure from Xinxiang, China would be cytotoxic to human nasal epithelial cells (HNECs) in vitro & would induce proinflammatory/oxidative-stress responses comparable to PM derived from woodsmoke & diesel exhaust. Filters with particulate matter were sent directly from Xinxiang and particles were extracted. HNECs were exposed to Xinxiang PM or extract from blank filters suspended in culture medium or control for 2 hours. Samples were collected at 8, 24, 48, and 72 h post exposure. Our LDH assay concluded that the cytotoxicity of Xinxiang PM is low at a range of doses. However, we found that Xinxiang PM has proinflammatory effects at 8 and 24 h post exposure. Specifically, IFN-g, IL-6, IL-13, and TNF-a were upregulated at these early timepoints due to Xinxiang PM exposure. Xinxiang PM did not cause oxidative stress gene expression changes in HMOX-1 or NQO1. To further expound upon this study, we will examine to see if there is correlation between PM exposure and viral infection susceptibility.

DRAFT

Oral
Senior
Cristian Rodriguez
BRITE
College of Health and Sciences
Liju Yang
Pharmaceutical Sciences/BRITE

TITLE : Comparing Response Of Vesicular Stomatitis Viruses To Carbon Nanodot Samples, Synthesized Using Different Approaches

The spread of infectious diseases due to viruses has increased in the past couple of years and have brought more attentions to the public. Carbon dots (CDots) are small carbon nanoparticles (CNPs) with organic surface functionalization in a core-shell structural configuration. CDots have shown favorable photo-excited antimicrobial functions to bacteria and viruses. The most studied CDot is the sample made from pre-existing CNPs with surface functionalization of polyethyleneimine (PEI-CDots). There also reported that the dot samples can be synthesized from precursors such as citric acid (CA) mixing with PEI using thermal processing for carbonization. This study compared three carbonization synthesized (CS) dot samples for their antiviral activity to Vesicular Stomatitis Virus (VSV), in comparison to that of the well-studied PEI-CDots. The three CS samples were synthesized at 200 ˚C for 3 h (CS200), at 330˚ C for 6 h (CS330, and a microwave thermal processed sample (CSMT), all made from the same CA/PEI mixture. Results determined based on plaque assay showed significant antiviral activity of CS330 and CSMT, but still less effective than PEI-CDots, while CS200 failed to show any activity. Results of reactive oxygen species (ROS) and SDS page provided mechanistic understanding to the divergence in their antiviral activities.

DRAFT

Oral
Senior
Taylor Gilbert
Education
School of Education
Israel Almodovar English
Kuldip Kuwahara
English

TITLE : The Power of Storytelling

I will give an intertextual study of Chinua Achebe's Things Fall Apart and Joseph Conrad's Heart of Darkness from the perspective of a 21st century reader. In this study, I will explore the power of storytelling and the power to narrate or block other narratives about a culture from forming. I will apply themes from Edward Said's Culture and Imperialism, being sure to discuss how imperialism and orientalism plays a crucial role in shaping different perspectives of the African culture that is displayed in Things Fall Apart. This study is important because it helps the audience think critically about culture and how different perceptions about a culture, specifically African culture, can misconstrue the truth about historical occurrences. Although both of these stories are fiction, the overall themes can be related to reality because literature is heavily woven into our culture. The value of the colonist's story is diminished because of the present prejudiced recount of the culture of the African people. If one has a goal to tell a story of a culture that they do not belong to, the writer should be clear with their intent to objectively tell the story.

DRAFT

Poster
Freshman
Shaila Jackson
Chemistry and Bio-Chemistry
College of Health and Sciences
Ufana Riaz Chemistry and Bio-Chemistry, DarleneTaylor Chemistry and Bio-Chemistry
Darlene Taylor Chemisty and Bio-Chemistry

TITLE : Development of smart packaging materials Based on Polyanilline/ Carbon Nanodots Modification Of PANI With Carbon Nanodots For Enhanced Optoelectronic Properties

Shaila Jackson, Ufana Riaz, and Darlene Taylor
Department of Chemistry and Biochemistry, College of Health Sciences

Abstract:
The present work reports synthesis of polyaniline (PANI) using different oxidants such as ammonium dichromate, ferric chloride and ferrous sulphate to study the morphologies and the variations of the electronic transitions upon doping with sulphuric and hydrochloric acids. The PANI was characterized using FTIR, UV-visible and scanning electron microscopy (SEM). Carbon nanodots (CND) were loaded in different amounts to investigate the change in the fluorescence properties of these polymers upon addition of carbon nano-dots. The nanohybrids hold potential application in designing smart packaging materials.
Keywords: polyaniline; carbon nanodots; UV-visible; nanohybrids

DRAFT

Poster
Freshman
Sofia Sanchez Lemus
Department of Chemistry and Biochemistry
College of Health and Sciences
Darlene Taylor Department of Chemistry and Biochemistry, Ufana Riaz Department of Chemistry and Biochemistry, Darlene Taylor Department of Chemistry and Biochemistry

TITLE : Vanadium Pentoxide (V_2O_5) Nanohybrids for Designing Solar Cells

Sofia Sanchez Lemus, Ufana Riaz and Darlene Taylor*
Department of Chemistry and Biochemistry, College of Health Sciences

Abstract:
The present work reports solid-state intercalation of p-phenylenes in the interlayer space of vanadium pentoxide with a view to study the effect of space confinement on the optoelectronic properties of the conjugated oligomers as well as vanadium pentoxide. The organic-inorganic nanohybrids were characterized using, FTIR, UV-visible, X-ray diffraction (XRD) and scanning electron microscopy (SEM), atomic force microscopy (AFM). Bandgaps were determined using the UV-visible data and were found to show variation with the side chain functional groups of p-phenylenes. The study could be helpful in designing next generation solar cells with controlled properties.

Keywords: Vanadium pentoxide; p-phenylenes; nanocomposites; solar cells; bandgap; morphology

DRAFT

Poster
Graduate Student - Masters level
Scott Bruce
Music
College of Arts, Social Science, and Humanities
Scott Bruce, Music
Thomas Taylor, Professor of Percussion

TITLE : Elvin Jones's approach to the drumset as illustrated through In Both Directions at Once: The Lost Album

This poster explores the ways in which Elvin Jones (1927-2004) incorporated his signature playing style on John Coltrane's Both Directions at Once: The Lost Album (1963) and its impact. This poster I analyses how Jones builds his seemingly free and polyrhythmic drumming on top of a consistent triplet comping foundation, noting other key techniques, such as a unique ride cymbal pattern, non-traditional use of the hi-hat, and superimposition of meter. I also relate how his use of all four limbs among the drumset effected phrasing and dynamics in ways that differed from other drummers who recorded in 1963, specifically Frankie Dunlop on Thelonious Monk's "Monk's Dream" and Philly Joe Jones on Hank Mobley's "No Room for Squares." The contrast between these drummers' styles will be demonstrated by transcriptions and live performances that assist the listener in hearing the minute details of these well-known performers.

DRAFT

Poster
Graduate Student - Masters level
Dextiny McCain
Psychology
College of Arts, Social Science, and Humanities
Jonathan N. Livingston, PhD Psychology, Ashlee Long Psychology, Markita Jones,
Jonathan Livingston, Psychology, North Carolina Central University

TITLE : The change we have been waiting for: Understanding attitudinal differences among activist black women and non-activist

The roles of black women in activist and social change efforts in the U.S. are understudied. From the early abolitionist movement to present movements like Black Lives Matter and MeToo, black women have played a unique role in politics and social change efforts in the black community and U.S. The available literature highlights mainstream political participation, LGBTQ+, and feminist activist efforts, and not the specific actions black women do to improve the black community. The current study sought to understand differences in racial identity, psychological empowerment, spirituality, racism in the public domain, and activism among black women who self-identify as activists and those who do not. The participants consisted of 141 black women from a Mid-Atlantic Tri-City. Independent sample t-tests indicated statistically significant differences in centrality, spirituality, psychological empowerment, and activism among black women who self-identify as activists. Given the current social unrest and female lead activism efforts throughout communities in the U.S., there is a need to understand factors that influence community engagement and social action among Black women. Moreover, given the increase in leadership in various institutions throughout the U.S., such research may aid in developing a curriculum to train young women toward social action.

DRAFT

Poster
Graduate Student - Masters level
Sophie Bennewitz
School of Library and Information Science
College of Arts, Social Science, and Humanities
Kimyarda Williams School of Library and Information Science, Joshua SmileySchool of Library and Information Science,
Deborah Swain, School of Library and Information Science

TITLE : Usability Evaluation of Cloud Library App

The way books are read, information is gathered, and research is conducted has changed due to technological innovations. The necessity of going into an actual library to read the physical copy of a book has become obsolete because of applications like Cloud Library. The purpose of this usability study is to determine whether these technological innovations are beneficial or detrimental to end-users. This research study will analyze the usability of the app Cloud Library. This app is used by many public libraries to provide eBooks and audio to their patrons. Users can download digital materials to almost any device to be read with or without an internet connection. This study will determine how user-friendly Cloud Library is with regards to finding materials and accessing them on different devices. The data in this study will be gathered from surveys given to at least ten participants (18 years or older) with varying levels of computer proficiency. This survey will inquire about the app's usability on different devices and operating systems; additionally, data will be gathered about similar products in the marketplace for comparison purposes. Finally, the results from this usability study will include design change suggestions.

DRAFT

Poster
Graduate Student - Masters level
Nada Elbarbary
BRITE
College of Health and Sciences
Sabin Khatiwada BRITE, Fares Abu Sweilem BRITE, Nailya Gilyazova BRITE,
Bin Xu, North Carolina Central University

TITLE : Human Tau Expression, Purification and Aggregation.

Alzheimer's disease (AD) is a neurodegenerative disorder characterized with loss in memory and related cognitive dysfunctions. It has no cure or prevention to date. Tau proteins are the major constituents of intraneuronal fibrils in AD and several neurodegenerative disorders called tauopathies. Tau proteins belong to the family of microtubule-associated proteins. Hyperphosphorylated tau forms the neurofibrillary tangles (NFTs) that aggregate in an insoluble form and impairs tau's capacity to bind to microtubules which correlate well with the progression of cognitive impairments. Therefore, p-tau affords a feasible model for AD mechanistic and drug discovery studies. This project focuses on aggregation and cytotoxicity assays to validate new small molecules identified from screens that can inhibit toxic tau protein aggregation. In the adult human brain. There are six tau isoforms: 0N3R, 1N3R, 2N3R (3R repeats), and 0N4R, 1N4R and 2N4R (4R repeats). Here I report the preparation and characterization of full length 2N3R and 2N4R with respective relevance to 3R or 4R tauopathies. I will also validate new small compounds or hits that can reduce protein aggregation and toxicity through several assays such as ThT in vitro aggregation assays, quantitation of IC50 on dose dependent analysis, ThT fluorescence-based aggregation remodeling assays and cell-based cytotoxicity assays.
(This work is in part supported by NIH R01AG067607)

DRAFT

Poster
Graduate Student - Masters level
Elijah Hancock
Communication Sciences & Disorders
College of Health and Sciences
Kellyn Hall
Communication Sciences & Disorders

TITLE : Cognitive Impairment: How Speech-Language Pathologists Identify Patients for Services

Given mandates from the Centers for Medicare & Medicaid (CMS), the Brief Interview for Mental Status (BIMS) is given to all patients in healthcare settings to identify individuals with possible cognitive-linguistic impairments. However, research has identified limitations of the BIMS in accurately identifying individuals with mild impairments. Given the current questions surrounding the content validity of the BIMS, this measure may not be the best choice to screen for cognitive impairment in a broad population. The purpose of this study was to survey Speech-Language Pathologists (SLPs) in acute care and skilled nursing facilities (SNF) regarding the use of the BIMS to identify patients with cognitive deficits. A 12-question online survey was distributed to SLPs across the United States through national organizations, listservs, and convenience samples. Two rounds of data collection yielded over 200 responses. Preliminary analysis indicates that nearly 25% of acute care SLPs and less than 35% of SLPs in SNFs report using the BIMS to identify patients with suspected cognitive deficits who need a full assessment. Other more sensitive measures are used, suggesting that while the BIMS is mandated, it is not utilized in these healthcare settings. Further survey results and implications for policy changes will be presented.

DRAFT

Poster
Graduate Student - Masters level
Tony B. Esimaje
Department of Environmental, Earth and Geospatial Sciences
College of Health and Sciences
Majemite D. Iyangbe Department of Environmental, Earth and Geospatial Sciences,
Dr Zhiming Yang, Department of Environmental, Earth and Geospatial Sciences

TITLE : Temperature Anomaly Trends on Sea-Level in North and South Carolina Coastlines

Tony B. Esimaje and Majemite D. Iyangbe

One of the serious consequences of climate change is global warming, which is responsible for increase in sea-levels, temperature being a factor of climate change. This study analyzed temperature anomaly trends on sea-level data from the National Oceanic and Atmospheric Administration's (NOAA) coastal monitoring stations in North and South Carolina (NC, SC) Coastlines. The data collected was from 2000-2021. The objective was to predict temperature anomaly effects on sea-level rise. ArcGIS Pro 3.0.2 (OLS Regression Analysis) was used, the result of this study showed the highest rise in sea-level recorded in Forte Pulaski (SC); Wilmington (NC), Charleston I (SC), Beaufort (NC), Duck Pier Outside (NC), while Oregon (NC) & Springmaid (SC) are the lowest. Also, SC showed more warming compared to NC, temperature anomalies from year 2015 – 2021 and increased warming for both NC and SC. The average adjusted R-squared for NC (19%) and SC (24%), expresses (4oF) temperature influenced under ¼ increasing sea-levels. In conclusion, we reject the hypothesis statement by stating that temperature anomaly is not a lead influencer of sea level rise, but other factors not considered.

DRAFT

Poster
Graduate Student - Masters level
Vy Nguyen
Geospatial, Environmental, and Earth Sciences
College of Health and Sciences
Christopher McGinn
Department of Geospatial, Environmental, and Earth Sciences

TITLE : Comparing Suicide-Related Deaths in NC Between 2019 and 2020

In March 2020, the Covid-19 pandemic caused lockdowns across the Nation and the State. These strict protocols lead to several dramatic lifestyle changes, including isolation and loneliness. It is believed that the lack of social interaction during lockdown may lead to increased suicide-related deaths across the state. This research will attempt to identify if suicide-related deaths increased during the lockdown, in North Carolina, and if the deaths were a statistically significant change from previous years. This research used data of the number of suicides from 2019-2020 from the North Carolina Department of Health and Human Services. Geospatial Statistical analysis was conducted to visually demonstrate the changes in suicide deaths between the two years. Furthermore, a two-tailed T-Test was conducted to determine if there was statistical significance in the changes. Based on geospatial and statistical analysis, North Carolina experienced increased suicide-related deaths in 2020 compared to 2019; however, the number of deaths did not yield statistical significance.

DRAFT

Poster
Graduate Student - Masters level
Lucia Alston
Human Sciences
College of Health and Sciences
Lamis Jomaa Human Sciences, Kimberly Powell Human Sciences, Jason O'Briant Human Sciences,
Lamis Jomaa, Department of Human Sciences/Nutrition Program/CHAS

TITLE : Food insecurity and campus food pantry use among college students during and post COVID-19 pandemic: An Exploratory Qualitative Study

Objectives: To explore the perceptions and experiences of college students and key informants towards campus food pantries in a historically Black College and University (HBCU) and their potential impact on students' food security status during and post the pandemic.
Methods: Exploratory study with a descriptive qualitative design. The study was conducted at North Carolina Central University after securing ethical approval. Study participants included key informants and students (n = 10). Data collection started mid-summer 2022 and is ongoing. Recruitment of key informants was conducted using snowball sampling whereas recruitment of students was done using emails, flyers and social media channels. Recorded interviews with students and key informants to date were transcribed and thematically analyzed.
Results: Main emergent themes from interviews with key informants and students included: Food insecurity and limited nutrition literacy among campus pantry users (theme 1); overall positive effects of campus pantry included alleviation of food insecurity and reduction of stress and anxiety among users (theme 2). Respondents highlighted peer influence and limited finances/resources among the main motivators for access to the pantry services (theme 3); while barriers included persistent fear of stigma among users and challenges related to accessibility of the pantry services during and post the COVID-19 pandemic (theme 4). Strategies to improve campus pantries' operations, visibility, and type of food offered were also highlighted among key informants. Respondents also highlighted the need to incorporate nutrition education to improve students' food literacy while increasing their access to nutritious, convenient, and appealing food (theme 5).

Conclusion: Campus pantries can help alleviate food insecurity among college students in HBCU. Novel strategies are needed to overcome persistent barriers and help facilitate access to healthy food and beverage options within campus pantries while increasing food literacy of minority college students.
Keywords: food insecurity, food literacy, campus pantry, college students, qualitative study
Funding Sources: This study received seed funding from the College of Health and Sciences at the North Carolina Central University.

DRAFT

Poster
Graduate Student - Masters level
Belise Nyirambibi
School of Library and Information Science
School of Library and Information Sciences
Tilahun Teka School of Library and Information Science, Rodney Amoateng Agyeman School of Library and Information Science
Deborah Swain, School of Library and Information Science

TITLE : Malaria and Risk in Sub-Sharan Africa

The purpose of our research is to help save lives. First, we aim to collect information and data that supports reduced disease environments to educate stakeholders. The second purpose is to define preventive measures in use, and the third purpose is to recommend effective research for distributing vaccines and improving the logistics of providing healthcare.
This project focuses on sub-Saharan Africa and treatments and control of malaria in: Ethiopia, Ghana, and D.R.Congo.
Our questions: what are the challenges of treating malaria, and how to eliminate malaria? We are sending semi-structured interview questions and a survey to 15 subjects. The solutions collected as textual data will be analysed and grouped based on practices that are in effect now or being planned for the near future. In some cases, vaccines have also been implemented; however, there are logistical challenges for healthcare providers.

This project will result in a framework for health care, economic and environmental outcomes that can help control malaria. The framework will be reviewed by the subjects for user experience (UX) issues. We hope to give the stakeholders (the experts and decision makers in malaria control policy from the selected countries) new information and knowledge based on our study.

DRAFT

Poster
Graduate Student - Masters level
Ashley Burwell
School of Library and Information Sciences
Kingsley Ibezim School of Library and Information Sciences, Ronda Campbell School of Library and Information Sciences
Deborah Swain, School of Library and Information Sciences

TITLE : **Usability of Video Conferencing Apps: Microsoft Teams, WebEx, Zoom.**

Authors: Ashley Burwell, Kingsley Ibezim, Ronda Campbell.
Research Advisor: Dr. Deborah Swain.
Academic Department: School of Library and Information Sciences.

Our research study will be evaluating the functionality, quality, usability, and efficiency of Microsoft Teams, Zoom, and Webex. We will conduct an online survey that will assess the use of each platform. We will confirm if participants use the platform for school, work, or both. The survey will include demographic information of users who are at least 18 years of age and older, if participants are students, or workers. Also differentiate between which platform works best for work or school. Users will vary in age, computer and application literacy, and gender. The research will use qualitative data collection from the use of open-ended questions, and user feedback. We will ask the participants to rate the usability, efficiency of the chat feature, sharing screens, video, and audio quality.

Expected results will include the overall usability rating and effectiveness of the users' experience with Microsoft Teams, Zoom, and Webex. Results from each user will show any areas of improvement for video conferencing technology. The results will also highlight important areas of potential product redesign. Also, the results can shape the way developers create video conferencing applications and how we communicate and share information in the future.

DRAFT

Poster
Nijee Brown
Library Science
School of Library and Information Sciences
Deborah Swain
School of Library and Information Sciences

TITLE : Open Educational Resources: Storing and Accessing Computable Biomedical Knowledge

Can library science move forward as gatekeepers, creators, and consumers of computable biomedical knowledge or CBK (Williams, et al., 2020)? Yes. This research goes back to library skills to help information scientists and knowledge managers "get it." Reviewing a pilot class for LIS professionals, we are developing online, sustainable open educational resource (OER) materials for global users. A community of practice will efficiently deliver biomedical applications for researchers, LIS professionals, healthcare providers, and patients. Our brave goal grew from an Institute of Museum and Library Services (IMLS) grant to put library and information professionals in the fore-front designing and maintaining effective medical repositories while collaborating with authors. Access to data is essential to establishing effective Learning Health Systems (LHSs). The vision is to improve healthcare where underutilization of appropriate and overutilization of inappropriate care leads to rising costs, less safety, and health disparities (Friedman, et al., 2017). The "mobilizing CBK" movement from Michigan's Medical School LHS department is providing infrastructure, metadata, and networks to writing developers worldwide so access to research knowledge supports health-related decisions. Pre- and post-assessments of pilot training by medical providers, health library directors and LIS educators provide quantitative and qualitative data helping design the OER. Fearlessly applying "open pedagogy," we will support copyright laws but create and share practices that sidestep proprietary entanglements as librarians in Arizona researched (Casey & Daly, 2021). We are developing an "open textbook" with learning modules like publishing in open access, avoiding bias, review systematically, redefine librarian's role, and NLM tools.

DRAFT

Poster
Senior
Jordyn Martin
Mass Communication
College of Arts, Social Science, and Humanities
Lisa Paulin
Mass Communication/ NCCU

TITLE : How Has Social Media Trends Impacted Marketing Towards Generation Z

Generation Z is one of the most talked about generations of our time. It seems that the news is always talking about this up-and-coming generation. Generation Z, colloquially referred to as "Gen Z", is the most racially and ethnically diverse generation to date, according to the Pew Research Center. As Gen Z ages up and becomes the dominant generation in society and the workforce, more companies are looking for ways to entice this group to purchase their products. Yet, this seems to be a challenge for many brands and marketers. Unlike previous generations, Gen Z cannot be persuaded using traditional print media, such as magazines and newspapers. They are also not very affected by television ads or radio commercials. The focus of this study is to learn what marketing methods are most effective towards members of Generation Z. My research method is a survey of members of Generation Z to get their opinions on various marketing campaigns. The results of this study could help marketing professionals better craft marketing efforts towards Generation Z.

DRAFT

Poster
Senior
Caroline S Carter
Mass Communications, Public Relations
College of Arts, Social Science, and Humanities
Tianduo Zhang
Mass Communications

TITLE : Psychiatrists of the Press: An analysis of the ethicality of reporting celebrity mental health challenges

There is an abundance of celebrities who suffer from mental health issues. A few stars are bold and come out about them; others keep these diagnoses bottled in. This study will discover how celebrities' mental health is covered in the media and how clarity of their mental health is sought amongst viewers and listeners. To gather data, researchers observed news coverage from the three major media outlets in the urban community. Researchers broke down this content analysis into categories focused on demographics, psychographics, and the celebrity industry. Researchers also compared the symptoms of the star with the diagnosed symptoms to ensure the credibility of the diagnosis. After gathering the data, one will discover the frequency of positive and negative coverage is based on the severity of the mental disparity. Though health educators have little to do with how this information is disseminated, entertainment education is the process of producing content intending to entertain and educate (Indeed, 2021).

DRAFT

Poster
Senior
Janaisia Baldwin
Pharmaceutical Science
College of Arts, Social Science, and Humanities
Sumaira Ahmed Pharmaceutical Science, Catherine Wooten Pharmaceutical Science, Dayami Lopez Pharmaceutical Science,
Dayami Lopez
Pharmaceutical Science/ BRITE

TITLE : Identification of siRNA Duplexes against the Scavenger Receptor Class B Type 1 Receptor

High density lipoproteins (HDLs) play a critical role in cholesterol metabolism, and their plasma concentrations are inversely correlated with a risk for atherosclerosis. The scavenger receptor class B type 1 (SR-B1) binds HDLs with high affinity and mediates selective uptake of cholesteryl esters into cells. Then, it releases the HDL particle back to the bloodstream. SR-B1 has also being implicated in the removal of proteins such as alpha-1 antitrypsin (A1AT) from the bloodstream. SR-B1 is expressed primarily in liver and non placental steroidogenic tissues. I used siRNAs duplexes specific for SR-B1 in an effort to reduce SR-B1 protein levels. Antibodies specific for SR-B1 were used to confirm reduction of the SR-B1 protein.The purpose of this experiment was to evaluate which siRNA duplex, and at which concentration, silenced SR-B1 expression most effectively. Once we identify the most effective regulator of SR-B1 protein, it will be used to determine the role of SR-B1 in the removal of A1AT, either alone or complexed with other regulators, in hepatic cells.

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Poster
Senior
Yazmine Arthur
Biological & Biomedical Sciences
College of Health and Sciences
William Pocher Biological & Biomedical Sciences, Acharmanette Collins Biological & Biomedical Sciences, Leila Pina Biological & Biomedical Sciences,
Catherine Key, Biological & Biomedical Sciences

TITLE : The Impact of Isolation on Alcohol Use Disorder in *Drosophila melanogaster*

The COVID-19 pandemic caused many people to experience an excessive amount of isolation which could increase alcohol consumption leading to exacerbating the effects of Alcohol Use Disorder (AUD). The most severe type of AUD is alcoholism which can cause multiple organ damage and death. AUD is a global problem. To understand the underlying molecular genetics of AUD intensified by isolation, experiments using Drosophila melanogaster (fruit flies) are conducted. Since 50% of the fruit fly genome is homologous to humans, sharing ~75% of disease-causing genes with humans, this makes them a good model organism for studying human disease. If specific genes related to AUD in Drosophila melanogaster can be found using a Genome-Wide Association (GWA) study conducted with the living library of fruit flies known as the Drosophila Genetic Reference Panel (DGRP), then the results we discover in flies can be applied to humans through translational research.
This research is conducted by NCCU students in the Drosophila Behavioral Genetics course who will report on alcohol consumption among socially isolated and socially 'educated' fruit flies using CAFÉ assays. It is hypothesized that fruit flies being reared in isolation will exhibit increased alcohol consumption.

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Poster
Senior
Shamella Myrick
Biomedical Sciences
College of Health and Sciences
Liju Yang,Department of Pharmaceutical Sciences, Biomanufacturing Research Institute and Technology Enterprise

TITLE : Antibacterial Functions of Graphene Oxide Modified Polythiophene

A new class of antimicrobials has not been developed and released since 1987. The objective for this study is to determine the effectiveness of a one-dimensional polymer, three weight percent polythiophene, on the gram-positive bacteria, Bacillus Subtilis. Upon performing a disc diffusion assay with dark and light conditions, the polymer proved to have bactericidal properties. A standard 1:10 serial dilution of varying concentrations assisted in determining the optimal range to dose the bacteria

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Poster
Senior
NiDaria LaShae Powell
BRITE
College of Health and Sciences
Jonathan Wood UNC Department of Psychology and Neuroscience, Janay Franklin UNC Department of Psychology and Neuroscience, Eden Harder UNC Department of Psychology and Neuroscience
Kathryn Reissner, The University of North Carolina at Chapel Hill, Department of Psychology and Neuroscience

TITLE :

Exploring Motivational Dependency of Cocaine Administration and its Effects on Nucleus Accumbens Astrocytes

Substance Use Disorders are a prominent public health concern. To better understand the behaviors of SUDs, we must understand the mechanisms involved. The Nucleus Accumbens is a region of the reward circuitry located in the basal forebrain. Astrocytes in the nucleus accumbens are known to play a key role in drug-seeking behavior. Furthermore, it is unknown if addictive behaviors are related to the drug itself or if the act of seeking the drug plays a role in the development of addiction.

This will be examined through a Yoked Rodent Cocaine Self-Administration model in which some rodents will receive non-contingent infusions of cocaine based on the activity of a self-administering rodent. This is done using operant boxes with one active lever which delivers an infusion of cocaine, and one inactive lever.

At the conclusion of the study, samples of the Nucleus Accumbens will be analyzed to determine if the characteristics of the active self-administering rats differ from those who received non-contingent infusions.

The outcomes of this study will provide a deeper understanding of the mechanisms involved in Substance Use Disorders and potential treatments to combat addictive behaviors.

DRAFT

Poster
Senior
Jaschia Hall
NCCU Department of Public Health Education
College of Health and Sciences
Amira Aladetan Carleton College
Stephanie Morain, PhD, MPH
Johns Hopkins University Bloomberg School of Public Health

TITLE : **Closing the Gender Gap: Examining the Accessibility and Affordability of Childcare in Academic Medical Centers**

Background: Historically, women in academic medicine are disproportionately affected by the burden of familial responsibilities. Women are more likely than men to have to prioritize the needs of their family above their professional goals, which leads to slower career advancement and even them leaving the field altogether.
Objective: The objective of this study is to describe the availability, affordability, and accessibility of childcare for medical school trainees and faculty at U.S. medical schools.
Methods: We examined the 2023 top 30 U.S. medical schools as ranked by the U.S. News and World Report in 2022. We conducted online searches before calling individual centers to gather remaining data and confirm data already collected. Data collected included the presence of on-site or affiliated childcare centers, eligibility criteria and enrollment prioritization, hours of operation, estimated wait times, and monthly tuition.
Results: We present the proportion of schools that have an on-site or affiliated childcare center, mean and range estimated wait time for enrollment, mean and range monthly tuition, and hours of operation.
Discussion: We discuss the importance of the cost of childcare in comparison to the trainee and faculty salaries, hours of operation to typical workhours, variation in enrollment prioritization, implications of wait times.

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