Neumann University Presents the Tenth Annual

LEAD Conference

And Poster Symposium

"Leading the Way..."

Presented by the Neumann University Honors Association in Cooperation with the Office of Academic Affairs

April 28, 2022

Order of Events

2:40 PM	Check-In (Outside Bachmann 315)
2:45 PM	Welcome and Overview (Bachmann 315)
3:00 PM	Presentation Sessions (Bachmann 315)
4:30 PM	Poster Symposium (Bayada Atrium, Mirenda Center)
6:00 PM	Presentation of Certificates and Awards (Bayada Atrium, Mirenda Center)

Oral Presentations

3:00 – 4:15 p.m.

Bachmann Main Building Room 315

Facilitators: Students of the Sophomore Honors Seminar, Spring 2022

Victoria Maloney

The Disney Dynamics of Class Systems and Societal Norms: An Analysis of Class Relationships, Familial Interactions, and Suburban and Urban Life

Gender roles, social outcasts, immigrants, and other anomalies to the typical view of American culture are subtly and directly portrayed in many Disney classics. *Lady and the Tramp,* one of the most beloved Disney movies, involves many themes that in its time of release, were centered around maintaining the "model American lifestyle." The impact that Disney movies and products have on society as a whole has grown over the years, which has both ingrained in us and broken stereotypes. These stereotypes, once formed, are very hard to break and can take generations to even realize its harm, let alone try and undo the damage they cause. These movies are directed towards impressionable, vulnerable groups, which can teach them life lessons that impact their view on many things. Older Disney movies still teach students things both consciously and subconsciously, impacting their views on family life, certain groups in society, etc. Movies like *Lady and the Tramp* during Disney's Golden Era depict the stereotypical American family model and lifestyle as the quintessential standard. This model and lifestyle is advertised as the goal, and while it may be good for some, realistically it is not achievable for everyone.

Ally Marvel

The Media's Response to the March for Our Lives

Supervising Professor: Christina LaVecchia, PhD

For my presentation, I will be focusing on the March for Our Lives, a protest for gun control legislation led by high school students. This march was in response to the Marjory Stoneman Douglas High School shooting on February 14, 2018. This tragic event was the eighth mass school shooting of that year, killing 17 students and faculty members, (Andone, 2018). Shortly after the shooting, surviving students used social media to create #NeverAgain, which led to the founding of the March for Our Lives. The goals of this march were to pass a law that bans the assault weapons frequently used in mass shootings, restrict the amount of ammunition by stopping the sale of high-capacity magazines, and to require background checks for every gun purchase, (March for Our Lives, 2018). The march took place March 24, 2018, with 800,000 people participating in the main march in Washington D.C., and 800 sister marches in other cities around the world, (Jones, 2018). Also following the march, thousands of students around the world showed their support for the cause by walking out of school together at 10 a.m. local time, (Yee & Blinder, 2018). This left many classrooms empty, forcing the conversation on gun control in many schools. Throughout the presentation, I will be focusing on the ways media have responded to the March for Our Lives and the ways that impacted the movement.

Devon Ferguson, MSS, MLSP, LSW and Marisa A. Rauscher, PhD
A Cased Based Exploration of Trauma Informed Relationships

This session will utilize a case-based methodology to investigate the core tenets of a trauma informed approach to human interaction. Specifically, participants will be asked to consider how traumatic life experiences inform an individual's ability to accurately ascertain threat, sustain fulfilling relationships, self-regulate daily human emotions, and navigate school, familial, and work-related stressors. Concrete examples of enacting a trauma informed lens /positionality in the fields of social work and teaching will be introduced and examined. Ultimately, this session will make the case that the specific interventions used in both social work and the classroom dynamic are ones that may be utilized in everyday life to facilitate a responsive and active approach to building healthy and fulfilling relationships.

Deirdre Holmes
Music Therapy, Stress Management, and the Implications for Nursing Students
Supervising Professor: Richard Sayers, PhD

College students experience at least some form of stress at some point in their college careers. However, nursing students often experience higher levels of stress when compared to their peers. These stresses are often due to academic rigor, clinical practicum requirements, extracurricular activities, and many other responsibilities that require excellent time management. There are many negative health consequences from chronically high stress levels. Stress affects the physiological, psychological, and emotional domains of a person. Thus, it is important for those who experience high levels of stress, e.g., nursing students and nurses, to utilize effective stress management techniques in a healthy way.

One particular stress management method is music therapy, which includes listening to, playing, or creating music on instruments participants find therapeutic, e.g., the piano. Music therapy is an effective stress reduction method and can help improve psychological well-being. This presentation will discuss how musical performance is an effective stress reduction method that should be used by nursing students coping with high stress levels. This presentation will also explore the connection between stress reduction, music therapy, and implications for nursing students and nurses.

Poster Symposium

4:30 – 6:00 p.m.

Bayada Atrium, Mirenda Center

ATHLETIC TRAINING, MS
Supervising Professor: Andrea Lobacz, PhD, ATC

Jessica Kendall
King-Devick and Vestibular Ocular Motor Screening Baseline Concussion Testing in Athletes with ADHD and Learning Disabilities: A Critically Appraised Topic

Baseline concussion assessments are used in concussion management to establish baseline cognitive, vestibular and oculomotor measurements that can be used to compare post-concussion. Evidence suggests that differences in baseline assessment scores exist in athletes with attention deficit hyperactivity disorder (ADHD) and learning disabilities, specifically with the ImPACT test and the SCAT5 tool. However, it still remains to be determined if such differences exist in other commonly utilized concussion baseline assessment tools. This critically appraised topic examines four studies that examine the influence of ADHD and learning disabilities on performance of the King-Devick (K-D) and Vestibular Oculomotor Screening (VOMS) baseline assessments. Moderate evidence from this critical appraisal supports that there is a difference in baseline assessment scores in athletes with ADHD and learning disabilities on the K-D and VOMS. These results indicate that current concussion baseline assessment measures may not be appropriate for patients with ADHD and learning disabilities. Further research should investigate whether separate normative values are warranted for patients in this population and if ADHD medication use impacts patient's performance on these baseline assessments.

BIOLOGY
Supervising Professors: Sarah Burke, PhD; Patricia Fallest-Strobl, PhD; Matthew Mastropaolo, PhD

Oluwatomiwa Adebamiro
Pregnancy Tests versus Their Expiration Date

The purpose of this experiment was to determine whether qualitative urine pregnancy tests truly expire. My hypothesis is that pregnancy tests do not expire, at least within ten years of the listed expiration date. Expired pregnancy test kits ranging from 2008-2014 were used to compare to two non expired pregnancy test kits with expiration dates in July and August 2022. This study consisted of three trials. The first trial utilized high and low controls of LiquiChek Immunoassay Plus Control (BioRad) to determine the lowest limit of detection. The second trial tested for a chance of false positive using urine with no human chorionic gonadotropin (hCG). The purpose of the third trial was to test whether prolonged exposure to air would dry out the

components and render the test ineffective. The results showed that the pregnancy tests within fourteen years of expiration date were still effective and reliably detected a minimal amount of hCG (25 mIU/mL). One limitation noted was that some of the expired pregnancy tests did take longer than the recommended three to five minutes for detection of a positive result.

Jennie Amin
Antimicrobial Activities of Turmeric and Cloves

Spices have been used for various medicinal purposes for centuries and scientifically known to inhibit microbial growth. Therefore, spices have potential to be developed as new and safe antimicrobial agents. To find an alternative to treat infections this research investigated antimicrobial properties of spices such as turmeric and cloves in powder form. Turmeric and clove powder were dissolved in solvent DMSO (Dimethyl sulfoxide) as well as in distilled water. Two different concentrations were prepared to study the effectiveness of the amount of solute and to avoid interferences from other substances present in the sample. Blank disc were impregnated in the concentrated and diluted solutions and placed in Muller Hinton agar plates swabbed with Staphylococcus aureus and Pseudomonas aeruginosa. All the plates were incubated at 37°C and read after 24 hours. The plates with turmeric impregnated with DMSO and water did not show any zone of inhibition against Staphylococcus aureus and Pseudomonas aeruginosa. The plates with cloves impregnated with DMSO and water showed the zone of inhibition against Staphylococcus aureus only. Further studies continue to test the antimicrobial properties of turmeric and cloves in different solutions are needed.

Davia Campbell
Examination of Microbacterium Phage Host Range and in Silco Analysis of Tail Proteins of Sequences Phage Genomes

From 2018 to 2022, various groups of SEA-PHAGE students at Neumann University gathered soil samples from areas surrounding Delaware County, Pennsylvania. To isolate 28 bacteriophages, *Microbacterium foliorum* NRRL B-24224 SEA and *Arthrobacter globiformis* was used as the host during the wet lab of Phage Discovery. There are currently 9 phage genome sequences isolated from Microbacterium (2 Cluster EF, 1 Cluster EK1, 1 Cluster EK2, 2 Cluster EE, 1 Cluster EA9, 1 Cluster EB and 1 Cluster EC). The objective of this study was to examine if there are sequence similarities in tail proteins in bacteriophages between various clusters that would allow them to infect several hosts. The research focuses on analyzing 5 of our phages for host range experiments by comparing the sequenced phages to one another on 8 different Microbacterium species. Based on initial results the host ranges show that the vast majority of phages have a wider host range, however when compared to the original host their infection titers are substantially lower. Verification of these findings will require further investigation of the host range and their titer values. Furthermore, the analysis of minor tail protein sequences is being investigated using computer analysis through programs like phamerator and NCBI.

Brielle Flynn
Temperature Variation of Sordaria fimicola and its Effect on Growth and Meiotic Recombination

Sordaria fimicola (S. fimicola) is a fungus that produces spores within its asci. Several asci develop in the reproductive structure known as the perithecium. When the perithecium is broken open, ascospores can be counted to determine the frequency of recombination. The asci 4:4 ratio of non-recombinant genes or a 2:2:2:2 or 2:4:2 ratio of recombinant genes. Four crossing agar petri dishes were divided into four quadrants, with two sections of tan (mutant) S. fimicola strain and two sections of black (wildtype) strain alternated. Each dish was placed at a different temperature, 13°C, 20°C, 27°C, and 34°C, to determine the optimal growth

temperature and recombination frequency for each. *Sordaria fimicola* grew and recombined successfully at three different temperatures. The perithecia took 21 days to grow at 13°C, 10 days at 20°C, and 8 days at 27°C. At 34°C no perithecia due to the extreme temperature. The optimal temperature for *S. fimicola* was 27°C. Overall, *S. fimicola* did not have a significant change in recombination frequency between each temperature, only a change in the rate of its growth and optimal perithecium development was observed.

Camille Formilleza
Carbon Dioxide Production of Saccharomyces cerevisiae When Fermenting with Different Substrates

In middle school biology, fermentation is taught by educators alongside cellular respiration. Saccharomyces cerevisiae, sugar, and water can be used in lab activities to demonstrate the process of alcoholic fermentation. Sucrose is commonly used, but there are people who do not eat sugar. The goals of this experiment were to mix sugar and sugar substitutes with yeast to see what substrate ferments the fastest, produces the most carbon dioxide in an hour, and whether or not the artificial sweetener sucralose ferments. The results demonstrated that sucrose and glucose solutions fermented at the same speed, but the glucose was able to generate more carbon dioxide than the sucrose over an hour. The results showed that fructose had the same fermentation speed and carbon dioxide generation as glucose and that sucralose was able to produce a small amount of carbon dioxide. In this experiment, the movement of food coloring in the side arm of the volumeter shows the production of carbon dioxide, but the mixture only moves about the length of a centimeter in an hour. It would not be the best visual to show a middle school class, so it should be modified to show faster and more impressive results.

William Hart
Comparison of Glucose Methods and Reagent Stability

Clinical laboratories are responsible for providing accurate and precise results for glucose testing. The goal of the testing is to accurately measure the blood glucose concentration for screening, diagnosis, and monitoring of patients with diabetes mellitus and other health conditions. A comparative study was performed using glucose hexokinase and glucose oxidase methods, the two most common methods used in automated analyzers. Manual methods for glucose measurement are used in student laboratories, and this study was performed to determine the stability of expired and improperly stored glucose reagents. Low and high pooled serum controls were used to calculate the accuracy and precision of each method and to test the reliability of results from expired and improperly stored reagents. All methods tested yielded reproducible results indicating extended reagent stability beyond the expiration date allowing for continued use of expired reagents for teaching purposes.

Makayla Love
Metabolic Fingerprint of Bacterial Community Found in Petroleum Contaminated Soil

Crude oil contamination is an environmental hazard that has affected various different ecosystems. This experiment focused on the impact of crude oil contamination in soil. A healthy bacterial population is essential in maintaining the ecological health of the soil and thus to maintain a healthy environment. Exposure to crude oil contamination and oil components, specifically hydrocarbons have the potential to result in the alteration of bacterial communities present in polluted locations. In this experiment, the metabolism of the microbial population from two different soil samples were analyzed using BioLog Inc Eco MicroPlate. The contaminated soil sample was collected from a location near the Delaware City Oil Refinery and the uncontaminated sample was collected from the yard of an uninhabited house, protected from

trespassing. The goal of the experiment was to compare the bacterial population based on their ability to metabolize carbon for nutrients. Results of the experiment showed that the soil contaminated from crude oil runoff had a higher functional diversity than the uncontaminated soil, indicating that crude oil contamination has an impact on soil bacterial populations.

Caitlyn McHugh
Effectiveness of Antibacterial Cleaners on Household Surfaces

Staphylococcus aureus infections cause pockets of pus to appear on the skin that are red and painful. If this infection goes untreated it enters the bloodstream, leading the patient to sepsis and sometimes death. *S. aureus* infections commonly occur after hospital stays but can also occur to someone in their own home. This study focused on analyzing how effective different antibacterial disinfectants were against *S. aureus* on common household items. The Center for Disease Control (CDC) recommends a list of United States Environmental Protection Agency (EPA) registered products that are effective against *S. aureus*, which can be used in the home to decrease chances of S. aureus infections. Examples of these registered products that were used in this study include CLOROX bleach and Lysol disinfectant *S. aureus* cleaner. The additional disinfectants that were used were 70% isopropanol, and Clorox disinfectant wipes. These disinfectants were used to clean *S. aureus* off metal, plastic, and glass surfaces to represent common material surfaces found in households. Once the surfaces have been cleaned using the listed products, any surviving colonies of *S. aureus* were recorded to determine the effectiveness of the cleaning product in decreasing bacterial numbers.

William Orlando
Effects Drinks Have on Untreated Teeth Model With or Without Fluoride

Each day we drink beverages that can damage tooth enamel with high sugar concentrations, high acidity, and the presence of compounds that cause staining. This study examined the effects different beverages have on untreated teeth compared to treatment with fluoride or non-fluoride containing toothpaste. Eggshells were used as a substitute for tooth enamel because eggshells and tooth enamel have similar composition in that both contain a high percentage of calcium minerals. Drinks that were tested include soda, Red Bull, beer, coffee, orange juice, coconut milk, and saline. Untreated, fluoride-treated, non-fluoride toothpaste treated eggs were submerged in the liquids for 8 days. Photographs and the pH were recorded each day. The fluoride treatment provided more protection against the drinks than the non-fluoride toothpaste and the untreated control. The drink that stained the untreated teeth model the most was the soda. Additionally, the Red Bull extracted calcium away from the eggshell and created a crusty calcium coating around the egg. The only area that was protected from this calcium extraction was the one where the fluoride was present. In conclusion, the beverages we drink have the potential to damage tooth-enamel, but the use of fluoride treatments can mitigate some of this damage.

Gabby Pfaff
Assessment of Antibiotic Resistance in the Environment Through Soil Sampling

The Prevalence of Antibiotic Resistance in the Environment (PARE) project is a system used for reporting the global emergence of antibiotic resistant microbes in the environment. Many bacteria have developed the ability to deactivate drugs intended to kill them, thus making antibiotic treatment less effective, and increasing the risk for outbreaks of resistant infections. This study was designed to compare the prevalence of tetracycline-resistant bacteria in soil samples collected from locations near both waterfronts, and dry, inland areas. The soil analysis was conducted to verify if the level of antibiotic resistant bacteria increased in the soil located by a water source. Two total samples were retrieved from northern and southeast regions

along the Chesapeake Bay, and a soil dilution was executed to isolate the bacterial colonies. The bacteria were cultured on MacConkey agar plates containing various concentrations of tetracycline antibiotics. After incubation, results indicate that there was no significant difference in percentage of antibiotic resistant bacteria based on the geographical location of the soil. When comparing the percentage of resistance in Maryland soil to previously examined samples found in multiple areas around Pennsylvania, no distinct differences could be detected. However, antibiotic resistant colonies were prevalent on several plates that were composed with tetracycline, implying that the bacteria were exposed to the antibiotic.

Ian Sigmund Hamre
Effect of Dimethylformamide on developing Nicotiana tabacum

Dimethylformamide, commonly known as DMF, is a colorless liquid that has a wide range of applications, so much so that it has obtained the name of "universal solvent" in commercial settings. This chemical has a variety of negative health effects, such as dizziness, alcohol intolerance, and cancer. While the discussion on the effects of DMF on humans has mostly been settled, very little research pertaining to the effect that DMF has on the environment has been performed yet. To explore this concept, tobacco seeds were grown on an agar plate while exposed to varying levels of DMF. Each plate was exposed to DMF at two separate times, before the seeds were planted and after the seeds started to germinate. DMF levels that are toxic to humans have shown to have minimal to no effect of the seedlings. While some preliminary testing has shown that high concentrations of DMF may have a negative effect on the health of plants, that must be researched in more depth at a later time.

Tiffany Steciw
Effectiveness of Cleaning Solutions to Detect Blood with the Use of Luminol

Luminol solution is routinely used to detect blood from a crime scene. When the luminol comes into contact with the hemoglobin in the blood, it creates a blue chemiluminescent reaction at a wave length of 425nm that can be observed in the dark. The importance of luminol in forensic investigations is to detect any residual blood after being cleaned at a crime scene. The goal of this study was to determine the effectiveness of different cleaning solutions on a variety of bloodstained surfaces. The test surfaces included wood, tile, carpet, and brick. The three cleaning solutions tested were water, vinegar, and bleach. Additionally, a comparison was made between blood that was cleaned while still wet versus blood that had dried for 48 hours. After cleaning each surface by spraying and wiping with paper towels, luminol was applied to the dried surface and observations of the chemiluminescence were recorded using an iPhone. The brightness of each reaction was scored and the duration of each chemiluminescent reaction was timed. In all conditions, some chemiluminescence was detected but varied in terms of brightness and duration of signal. The longest and brightest chemiluminescent reaction was observed on the surfaces cleaned with bleach.

Kho Tuang
The Presence of DNA Modification Enzymes to Prevent Host Restriction in Phages Discovered by Neumann Students

Bacteriophage(s) are widely recognized as the world's most abundant and arguably most diverse microorganisms. When a phage infects the host cell, it encounters a variety of antiviral systems, and they have evolved numerous mechanisms to counterattack these processes in order to survive many. One of the counter-tactic phages develop include blocking the action of restriction- DNA modification enzyme(s). In this

study, the purpose was to examine whether the 9 phages discovered by students from Neumann University have DNA modification enzymes in their genomes in order to overcome bacterial resistance mechanisms. As a result, none of the phages have DNA modification enzyme(s) but a few of the phages have ThyX-thymidylate synthase in their genome which catalyze the methylation of 2^2-deoxyuridine-5^2-monophosphate (dUMP) to synthesize 2^2-deoxythymidine-5^2-monophosphate (dTMP). The findings indicated that further study was needed in order to understand the possible functions of the genes previously categorized with no functions as DNA-modification enzyme(s).

CLINICAL LABORATORY SCIENCE, MS
Supervising Professor: Jude Okoyeh, PhD

Mahtab Khudadad
The Role of Molecular Blood Group Genotyping in Transfusion Medicine.

The first successful blood transfusion was performed in the 1600's. Thereafter, the ABO blood grouping system was discovered by Karl Landsteiner. For over a century, hemagglutination has been the gold standard for detecting blood group antigens and antibodies in transfusion medicine. This method has several advantages - it is simple, cost-effective, requires little equipment, is widely available. If performed correctly, hemagglutination procedure meets the sensitivity and specificity requirements for clinical care of most patients needing blood transfusion. However, the agglutination method has limitations, such as difficulty detecting weak or partial blood antigens, identifying blood phenotypes in patients with multiple transfusions history or recent transfused or autoantibodies, and detecting rare blood antigens.

As a result, several well-established molecular-based blood genotyping applications have been increasingly used to predict patient blood phenotype and reduce the risk of alloimmunization. The molecule blood genotyping methods can be divided broadly into low to medium-throughput and high-throughput Microarrays-based systems. To date, 29 out of 30 blood group systems have been sequenced, and the molecular bases related to most blood antigens have been identified.

Additionally, blood genotyping has resolved many issues related to the standard hemagglutination method. Such as identifying red blood genotype of patients who have received a large amount of blood transfusion or have autoimmune hemolytic anemia where the standard hemagglutination test is not a reliable method of determining the patient's blood group, as well as fetal molecular blood genotyping in the management of hemolytic disease of the fetus and newborn.

This presentation summarizes how molecular blood group genotyping has improved patient care and reduced the risk of patient's alloimmunization in transfusion medicine, including its impact on future patient care and personalized medicine in transfusion medicine.

Jeremiah Serad
The Derivatives, Uses and Devastating Consequences of Opioids.

Opioids are fascinating pharmacological drugs that soothe pain and ease suffering. Some opioids (opium, morphine, and codeine) are derived from poppy plant. Opioids are generally classified as narcotics that are synthetic or partly synthetic. Opioids that are derived from natural sources are called opiates. The most

synthetic forms of opioids include Heroin, Oxytocin, Vicodin, Methadone, Fentanyl, etc. Opium gum was a rudimentary processed and dried milk from the poppy plant, while laudanum was a combination of alcohol and opium. Opiate use for medicinal and recreational purposes are as old as human history, but in the United States, they have been prescribed as controlled substances. Commonly prescribed opioids include OxyContin and Vicodin.

Opium gum, laudanum, or morphine were specifically administered to Soldiers for battle wounds during the American Civil War. However, opioids/opiates are highly addictive. Opioids are 20-50 times more addictive than regular opiates. Fentanyl is 50 times more addictive than heroin, and 100 times more addictive than morphine.

According to the Center for Disease Control, the modern opioid epidemic occurred in three waves: In 1999 with the rise in prescription, leading to opioid overdose and deaths. Another wave commenced in 2010 from increase in heroin overdoses. The third wave, from 2013, marked a high-rise associated with the use of synthetic opioids, such as Fentanyl. Since 1999, about 850,000 people have died from opioid-related overdose and in 2017, a 28.5% more than previous years. The devastating implications of opioid/opiates usage in American communities and CDC recommendations for assessments will be discussed.

HONORS PROGRAM

HNR 220 – Sophomore University Honors Seminar

Supervising Professor, James Kain

Carrie Cattlett

Implicit Bias in Healthcare and How to Combat it

Everyone has implicit biases. Typically, they are not dangerous; the brain simply uses them to organize information. However, when healthcare workers act on these biases, the quality of patient care can be compromised. A nurse is required to have good intuition to navigate the complexities of their profession, yet, this essential task may inadvertently draw from stereotypes, generalizations, and received ideas about a patient and their needs. For example, if there is a significant cultural difference between a caregiver and their patient, the former may resort to misunderstandings of the latter's needs, reducing the quality of their care. In the United States, one such difference is between African American diasporas and their health care providers. From this research, one should learn about implicit bias, health disparities for black women, and how health care professionals can combat implicit bias in the workplace.

HNR 420 – Senior University Honors Seminar
Supervising Professor, Christina LaVecchia, PhD

Brylin Adams
Put Yourself in Her Shoes

Over time, the role of women in sports has increased significantly. Through my research, I have observed that the media can affect female athletes whether it is physically, emotionally, or mentally. As a female athlete, I understand what it can be like for women in sports to be compared to the "norm" of society. I am truly interested to see the impact media can have on these women and what they deal with on a day-to-day basis. I hope to discover that these effects aren't all negative and that society is doing something to improve acceptance towards all females.

My research consists of narrative reviews and interviews. After reading multiple articles, I've found different concepts that impact female athletes. I will discuss the unrealistic content displayed throughout the media as a huge contributor towards dangerous eating habits. I will dive deeper into the types of athletes and how each body is built differently. This is not about female athletes being unhappy about the way sports have changed their bodies, but rather how the media has negatively portrayed them. The stress and eating disorders come from the culture surrounding the athlete that creates insecurities. I will incorporate how well-known female athletes in today's society have used the media to confront the backlash created by the media such as Simone Biles. I have created a documentary this past fall that incorporates these significant concepts from local female athletes, coaches, and counselors' point of view.

Elizabeth Cavaliere
Celebrities and Women's Rights Movements: The Impact of Celebrities' Platforms and Social Media with the Progression of Various Women's Rights Campaigns

For my presentation I will explore how celebrities impact activism; specifically, various women's rights movements and celebrities impact through social media. Celebrities have huge platforms, maybe even more so in this generation of fame than ever before. They have constant attention on them, with everyone following their day to day lives. This is from their rather large social media followings; which vary from a few thousand followers to a few million. This large social following makes every post, tweet, story and share capable of reaching a huge number of people at a very fast rate. This quick access to a large group of individuals gives these influencers a great deal of power; imagine anything you say reaching thousands of people in mere seconds, that puts you in a pretty powerful position. When it comes to activism, what impact do these celebrities have when speaking up for the cause? Do their words reach more people that may be more willing to listen? Does them getting involved get more media coverage than any other person/public figure? Does that in turn help the organization spread their message better? I will cover all this within my presentation.

Maria Franckiewicz
Science, Not Silence: A Rhetorical Analysis of the March for Science

For my proposal I am going to be looking at The March for Science protests which started in order to celebrate science along with the role it plays for everyday life and to emphasize the benefits science brings to people. It also took a closer look into Climate Control detailing what that is and how it affects us all on personal levels. This march shifted though; this protest turned from appreciating science, to a disagreement with the Trump Administration. Science is not just the study of the physical and natural world. Science splits

into Anatomy, Mathematics, Biology, Chemistry, Meteorology, Environmental Sciences, Engineering, Medical, everything that makes us truly us and everything around us that we call "home". By using peer reviewed journals and reliable websites, the people who do not know too much about science or climate control will be educated further on this matter and will be able to make their own decisions. Relatively new data and sources will be used and the paper outline will be organized in the way this proposal was laid out. Background information about the protests, how these protests got shaped, how it turned political in regard to the Trump Administration, support, and criticism on the marches.

Jamie Kinky
Socially Active Consumers

By definition, a boycott means to refuse to buy, use, or participate in (something) as a way of protesting (Merriam-Webster, n.d.) Socially active consumers have been increasingly growing as millennials and generation Z decided to take. They are educated buyers who value the principals and ethics behind a company. When there are issues they dislike, they boycott problematic brands. Their investments are with socially conscious businesses. Being a responsible spender can allow for great changes to be made. Common priorities and personal beliefs lie with sustainability, racial injustice, and animal welfare. Oftentimes, a boycott will not cause a company to lose revenue. Rather, there will be negative media attention which could result in a change. Long term action can be better than an immediate fix. The Moneyist claims that consumers are more powerful than anytime in history (Fottrell, 2020.) Social media is a large part of that by giving individuals a voice in which companies are listening to. Chick Fil A, Goya and SeaWorld are three businesses that encountered well known boycotts. A boycott is more likely to be successful if it receives adequate media coverage.

Marissa Lallone and Melinda Woo
Silence in a World of Noise: Exploring Accessibility for Deaf & Disabled

Our question would be why isn't there more accessibility for people who are deaf or disabled? This question is important because in today's age, the world is built for able-bodied people. But when you take one of the five senses away, the world is quieter and a lot more difficult to navigate. Things become difficult to understand when watching the news, listening for important sounds in your environment, or simply having a conversation with another person. It's necessary to have accessibility for people who are deaf or hard of hearing because life can change within seconds-people who were once able to hear and speak normally, now have the difficult task of learning a completely new language in order to properly communicate. And most hearing people are unable to understand what people sign because they don't understand what that person is saying, so that adds a language barrier into an already difficult conversation. Mindy and I want to explore the different ways that accessibility can help those who are deaf or disabled, and how those who are not deaf or hard of hearing can help them and better their world.

Kaitlyn Madron
The Rhetorical Analysis and Effectiveness of the Pro-Choice Movement

Discourse surrounding maternal righteousness is one of the most ambiguous yet eminent topics in American society. With the lack of authority possessed by anyone to hold one side true over the other, individuals on both ends of the spectrum have gone back and forth for decades trying to disprove the other. What was once a debate over morality, drastically evolved into a controversial partisan issue. There are two very distinct

sides in this debate: the pro-choice side, and the pro-life. Individuals who identify with either side of the matter are often cemented in their beliefs and hold little to no room to consider the other. There is no common ground, pro-choice embodies the belief that every woman should have access to a safe abortion, within reason, and pro-life is rooted in the belief that abortions should not be accessible in any circumstance. I will elaborate on the history of abortion in America, the development of both the pro-life, and pro-choice movements, the evolution from a personal belief to a political debate, and the lengths that activists have gone to ensure that their bodily and moral freedoms are being upheld.

AJ Tinari
The Evolution of War Protest Music

Activism and protests can occur through many different mediums, with one of the most popular and constant mediums being that of protest music. Protest music acts as a vehicle to spread the message of protestors in a more mainstream way. In this project, I specifically analyze protest music about war, as I believe it to be the most iconic and recognizable sub-category of protest music. I give a brief history of three prominent wars America was involved in over the years, the Vietnam War, the Cold War, and the Iraq War. Then, analyze the protest music that was written during those wars. By explaining the meaning of lyrics and the importance of the specific genre, I deeply explore six popular protest songs written during these wars to see what similar themes they share across the generations. This project shows how protest music of any era is able to remain relevant through similar messages and evolving its sound to fit in with modern trends. Songs like Fortunate Son by Creedence Clearwater Revival and Dirty Harry by Gorillaz (songs written 35 years apart) are able to relate to each other through their themes of death and the mistreatment of soldiers, which are relevant issues that we still face in war today. I believe protest music about war is essential in activism through its shared themes, evolving sound, and potential to bring people together.

THEO 320 – St. Francis and the Environment
Supervising Professor: John Kruse, PhD

Emily Elliott
The Relationship Between Mental Health and the Environment

This paper explores the relationship between mental health and the environment while specifically taking into consideration Pope Francis' encyclical titled Laudato Si'. While other aspects of life, including the environment, have been seen to affect people's physical health, there is a lack of research on the impact of the effects on mental health. With more light onto the issues, and adding onto what Pope Francis has stated, mental health can be viewed in new ways and improved using new techniques. Demonstrating the impact that the environment has on one's mental health, there is increased importance on further research and continuation of the need to care for and heal our relationship with the environment.

Christopher Greve
The Connection Between Professional Sports and Care for Creation

In his encyclical Laudato Si', Pope Francis calls for all people to work together to heal our planet's health. He also argues that there is a connection between caring for creation and promoting respect for human dignity.

As surprising as it might seem, the actions of several professional athletes, teams, and organizations demonstrate this connection. With their money, fame, and service in the community, many involved in professional sports promote care of creation and respect for human dignity. Therefore, those in professional sports have heeded Pope Francis' call to work together for the well-being of the planet and its inhabitants.

Gabrielle Morgan
The Interconnectedness of Creation Shown Through Animal Therapy

Animal Assisted Therapy (AAT) is a technique used by healthcare professionals to help individuals break through mental and physical obstacles by forming connections with the environment and feeling part of something bigger than themselves. This paper will explain how AAT demonstrates the benefits of recognizing the interconnectedness of all creation, an interconnectedness emphasized by Pope Francis in his encyclical Laudato Si'. Through consideration of the insights offered by Pope Francis and through greater use of AAT, a wide range of individuals, such as college students, patients in inpatient and outpatient clinics, and people facing developmental disabilities, can overcome mental health impairments. Understanding the impacts of AAT on mental health drives the need for developing innovative interventions that connect a person to their environment.

PSYCHOLOGY

PSYCH 401 – Critical Thinking in Psychology
Supervising Professor: Etsuko Hoshino-Browne, PhD

Alec R. Silverman, Bridget M. C. McTiernan, & Emily C. Cooper
Social Media Usage and Social Anxiety: Phenomenological Experiences among Neumann University Students

Social media has drastically changed how people interact with one another. People can connect with almost anyone in the world now very quickly and easily through social media. However, considering the current pandemic-ridden world, it is important to understand how the world shifting towards virtual modalities can impact social anxiety. With the fear of spreading COVID-19, people have spent more time being isolated from others. This, in turn, may have resulted in increased time on social media platforms. While social media has a benefit of making social connection easy, it also has the downside of affecting people's mental health. However, past research yielded inconsistent findings regarding the relationship between social media usage and mental health. Therefore, we conducted a correlational study using a survey which focused on the relationship between social media usage and social anxiety among NU students. Based on the past findings reviewed above, we expected to find a positive correlation between social media usage and social anxiety: the more social media students used, the higher level of social anxiety they would experience. We also conducted exploratory analysis with other variables such as resilience and emotional regulation. Some applications of the results to real life and implications for future research are discussed.

Ashley O. Beasley & Olivia L. Fritz

Does Experiencing Microaggression Increase or Decrease Resilience? In Case of Neumann University Students

In a multicultural society such as the United States, many minority groups face stereotypes, discrimination, and a series of microaggressions related to race, gender, sexual orientation, and religion. These microaggressions are experienced in homes, workplaces, schools, and in public. Past findings suggest that developing various positive coping strategies such as having open dialogue, using humor, or challenging perpetrators of microaggression is important for the well-being of those who experience microaggressions. Some past studies indicated that another way to counter the negative consequences of experiencing microaggression is fostering resilience. However, other studies demonstrated that experiencing microaggression reduces resilience. Which would be true among NU students, many of whom belong to minority groups? To investigate the subjective experiences of NU students in relation to experiencing microaggressions and resilience, we conducted a correlational study using a survey. Based on the past findings reviewed above, we expected to find a negative correlation between experiencing microaggression and resilience: the more microaggression people experienced, the lower levels of resilience people would show. We also conducted exploratory analysis with other variables such as emotional regulation and social anxiety. Some applications of the results to real life and implications for future research are discussed.

Briana N. Smith & Dominique E. Gatta
Emotion versus Cognition: Does Better Emotional Regulation Help More Critical Thinking?

Critical thinking skills are required to formulate different solutions to problems, to make appropriate or risky decisions, and to think creatively. These processes can be influenced by individuals' emotional states and their ability to regulate their emotions. Previous studies tended to focus on a subcomponent of critical thinking such as decision making or problem solving in relation to emotional regulation. Therefore, we were interested in examining whether the level of perceived efficacy of emotional regulation was associated with the level of perceived critical thinking skills. Additionally, some past studies found that older people are better at problem-solving and emotional regulation than younger people. Could such findings be generalized to college students who are frequently required to use critical thinking skills? To investigate these research questions, we conducted a correlational study using NU students as our sample. Based on the past findings reviewed above, we expected to find a positive correlation between perceived efficacy of emotional regulation and perceived critical thinking skills: the higher levels of emotional regulation students perceived, the better critical thinking skills they would perceive. We also conducted exploratory analysis with other variables such as resilience and social anxiety. Some applications of the results to real life and implications for future research are discussed.

PSYCH 403 – Independent Research I
Supervising Professor: Amanda Breen, PhD

Colleen Dever
Rape Culture, The Acceptance of Rape Myth, and their Relationship Franciscan beliefs among Neumann University Students

In our society today rape culture and the acceptance of rape myths has been an ongoing topic in discussion of women's rights and safety, especially on college campuses. Past research has demonstrated not only the

continued acceptance of rape myth, but also the gender and racial differences that coincide with it. However, no research has examined the relationship between rape myth acceptance and Franciscan values among college students at a Catholic university. This research will examine this relationship between the acceptance of rape myths and the values of Franciscan belief among freshman, sophomores, juniors, and seniors at Neumann University.

PSYCH 460 – Senior Psychology Seminar
Supervising Professor: Amanda Breen, PhD

Peyton Ahtes, Kayla Davisson, & Justin Gallashaw
Promote Walking at the Children Development Center

We are proposing a study to try and reduce the problem of running on the playground of Neumann University's Child Development Center. Instead of focusing on telling the children not to run, we are promoting running as the desired prosocial behavior. To try and reduce the number of kids running on the playground, we have designed five posters that promote walking while also grabbing the children's attention. As a group, we've decided to use the popular children's movie Encanto to gain their interest and promote walking more than just saying it verbally. We have gathered pre-intervention data on both walking and running on the playground. In the next step of our research, we are collecting information during the intervention period. As mentioned before, there are five posters with Encanto characters. Those characters are Bruno, Camilo, Isabela, Mirable, and Luisa. We decided that those were the most prominent characters from the entire movie. These posters will be placed outside and inside the Child Development Center. There will be one inside, on the door, so the children can see it on their way out. The next 4 will be placed around the playground. This includes the gazebos, the monkey bars, and the main jungle gym.

Colleen Dever, Victoria DiFebbo, & Jessica Rizio
The Neumann University Writing Center Research Project

Past research on advertisement use to motivate individuals indicated that people become more inclined to partake in a particular activity if the advertisement promoting it contains enticing and convincing components. In this project, a behavior change study is being carried out to examine the influence that promotional emails, as well as digital and paper flyers have on encouraging students to make use of the Neumann University Writing Center. All undergraduate and graduate students at Neumann University are receiving emails and are being provided with the opportunity to observe digital flyers presented on school televisions and paper flyers posted around campus. Then, the students who decide to use the Writing Center will be advised to fill out a questionnaire on how they heard about the center. It is predicted that the output of the emails along with the digital and paper flyers will increase the number of students utilizing the Writing Center both in person and online. Some applications of the expected results can be used to continue informing incoming students on the benefits of the Writing Center. Implications of the predicted results will be discussed at a later time as data is currently in the process of collection.

Olivia Fritz, Sydney Ladwig, & Emily Ross
Increasing Engagement of Upperclassmen Students Through Poster Interventions

The Knight's Pantry is one of the many resources provided to students on campus, and it serves to decrease the amount of food insecurity that Neumann University students face. Due to the Pantry being a newly added resource, the Pantry is still learning how to gain awareness and get many students engaged. In response to the low attendance and engagement of upperclassmen students in particular, a poster intervention with descriptive and provincial norms is proposed. An experimental study will be used to examine the relations between a poster intervention and upperclassmen students' attendance at the Knight's Pantry. Three versions of a poster targeting upperclassmen will be placed throughout high traffic areas on Neumann University's campus. When students enter the Knight's Pantry, they are required to fill out a short questionnaire, which includes them to specify their class. The data that is collected before and after the intervention will be derived from this questionnaire. It is hypothesized that the poster intervention will influence upperclassmen student's behavior and increase the overall traffic in the Pantry. Data is still being collected and will be presented at the conference.

Aleena McGonigal, Bridget McTiernan, & Briana Smith
Encouraging Full Stops at Stop Signs on Campus

Our goal is to increase the number of complete stops and reduce the number of people who roll through or speed through stop signs on the Neumann University campus. Our study will extend past research studies conducted because none of the existing studies sought to increase prosocial behavior by way of human safety. We will be using a flyer that will be placed on cars stating a message, a pair of eyes, and a stop sign picture. We will place the flyer across various times and days at three different stop signs. We will be examining stopping behaviors at 3 different stop sign locations on the campus of Neumann University: Bruder Life Center stop sign (without speed bump), RAB stop sign at the top of the hill, and Bachmann Main Building (convent road exit). We are measuring the stopping behavior: no stop, rolling stop, or a complete stop, three times a week for two weeks. We hypothesize that the flyer will be effective in increasing complete stops and decreasing rolling or no stops at stop signs in the Neumann community. We are currently collecting data and will present the results at the LEAD conference.

Thank you to our presentation and poster judges:

Prof. Devon Ferguson
Dr. Janis Chakars
Dr. Joseph Glass
Prof. Kerry Hustwit
Sr. Pat Hutchison, OSF
Dr. Geoff Karabin
Prof. Rina Keller
Dr. Claudia Kovach
Dr. John Kruse
Dr. Philip Pegan
Dr. Marisa Rauscher
Sr. Linda Sariego, OSF

...and to our faculty mentors:

Dr. Amanda Breen
Dr. Sarah Burke
Dr. Etsuko Hoshino-Browne
Prof. James Kain
Dr. John Kruse
Dr. Christina LaVecchia
Dr. Andrea Lobacz
Dr. Matt Mastropaolo
Dr. Jude Okoyeh
Dr. Richard Sayers
Dr. Patricia Fallest-Strobl

The Neumann University Honors Program would like to thank everyone who contributed to the success of the University's tenth annual LEAD Conference and Poster Symposium; in particular:

Chris Domes, EdD, M.S.Ed, President

Lawrence DiPaolo, Jr., PhD, Vice President for Academic Affairs

Sr. Kathy Dougherty, OSF, Vice President for Mission and Ministry

Alfred G. Mueller II, PhD, Dean of the Division of Arts and Sciences

Etsuko Hoshino-Browne, PhD, Coordinator of the LEAD Poster Symposium

Steve Bell, Director of Media Relations

Rachel Spina, Director of Digital Communications and Strategy

Elaine Hills, Secretary to the Faculty, School of Arts and Sciences

Nancy Tracy, Executive Secretary to the Vice President for Academic Affairs

Jessica Webster, Director of Conferences and Event Planning

Rita Webster and Sodexo

NU Honors Association Executive Board:
Victoria Maloney, Gabby Morgan, Emily Elliott, and Sheyla Mendez Desena

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