

Neumann University



Neumann University Presents
the Twelfth Annual

LEAD Conference And Poster Symposium

“Leading the Way...”

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

May 2, 2024



Order of Events

2:45 PM

Check-In
(Outside Bachmann 315)

3:00 PM

Welcome and Overview
(Bachmann 315)

3:15 PM

Presentation Sessions
(Bachmann 315, 316, 331, 318)

4:30 PM

Poster Symposium
(Bayada Atrium, Mirenda Center)

5:45 PM

**Presentation of Certificates
and Awards**
(Bayada Atrium, Mirenda Center)

Special thanks to PNC for sponsoring today's event.





Oral Presentations A

3:15 - 4:15 p.m.

Bachmann Main Building Room 315

Psychology

Supervising Professor: Etsuko Hoshino-Browne, PhD

Samantha Berry

Perfectionism and Procrastination: Associations with Cultural Norms, Perceived Parental Expectations, and Parenting Styles.

Past research has found a relationship between perfectionism and perfectionism. However, collectivistic cultural norms and parental behavior have not been explored in correlation with perfectionism and procrastination. Cultural values prevalent in collectivistic cultures, such as Asian and Latino cultures, may be particularly relevant to perfectionism because of high levels of parental expectations. These high levels of perfectionism may result in procrastination due to students' fear of disappointing their parents by not meeting their expectations. Therefore, this correlational study intends to investigate the correlation between collectivistic cultural norms, perceived parental expectations, parenting styles, and levels of perfectionism and procrastination in Asian and Latino students. A mixed-design method consisting of a questionnaire and an interview will be used to collect data from 10 Asian and Latino participants at Neumann. It is predicted that both perfectionism and procrastination will be positively correlated with collectivistic cultural norms, perceived parental expectations, and parenting styles. The findings of this study and the implications they pose will be discussed.

Dane Crilly

Attitude Towards Dietary Information

This study investigated the reaction to evidence-based dietary information contrasted with current dietary guidelines from the United States Department of Agriculture (USDA) while accounting for initial dietary beliefs. A whole food plant-based (WFPB) diet has been proven to prevent and reverse many of our most burdening diseases such as heart disease, diabetes, and some cancers. However, a WFPB diet has not often been considered as a therapeutic mechanism. One frequently cited reason for this is a lack of willingness to adopt new diets. Perhaps this belief is unfounded, and people's hesitancy to change their diet is more closely linked to a lack of awareness regarding the benefits of a whole food plant-based diet. The current study tested this idea by randomly assigning participants two conditions: one receiving dietary guidelines extracted from the USDA and the other receiving evidenced-based information regarding the benefits and protective effects of a WFPB diet. Participants then completed a dietary attitude survey as a measure of behavioral intention and a health literacy survey as a measure of comprehension of dietary information.

Samantha Holmburg

A Relationship between PTSD (Post-traumatic stress disorder) and Religious Coping among Veterans

Among veterans, PTSD is a common issue. In coping with PTSD, it is not difficult to imagine that religion comes into play in dealing with PTSD symptoms. Past research suggested that veterans with positive religious coping skills such as praying and reading religious scriptures experienced less severe PTSD symptoms, whereas veterans with negative religious coping skills such as anger towards God and feeling punished by God experienced more severe PTSD symptoms. One area that has not been examined extensively is the role of spousal religious beliefs. Would religious beliefs of spouses help or hinder veterans' PTSD symptom severity? May spouses' positive and negative religious coping be associated with veterans' positive and negative religious coping and veterans' PTSD symptom severity? This presentation outlines a research proposal for a quasi-experiment to examine these questions. The importance of establishing and maintaining a stable support system and a stable religious standing to help reduce PTSD symptom severity will be discussed.

Dillon Manchester

The Effects of Guided Imagery on Subjective Muscle Recovery

For many athletes, recovery is an important part of their preparation for their next game. However, some game schedules do not allow for proper muscle recovery which impacts athletes' performance during their next competition. Past research investigated supplemental forms of recovery to help athletes gain a competitive edge over others. However, this research neglected to investigate the effects of guided imagery. Research on guided imagery shows that it can have significant effects on physiological arousal, self-regulation, injury recovery, and disease treatment. Therefore, guided imagery may serve as a cost effective and quick supplement for muscle recovery. In the current study, Neumann University athletes are randomly assigned to either a guided imagery condition or a control condition. It is hypothesized that participants in the guided imagery condition will have lower levels of subjective muscle soreness 24 hours after the intervention compared to participants in the control condition. In this presentation, the findings and their implications will be discussed.



Oral Presentations B

3:15 - 4:15 p.m.

Bachmann Main Building Room 316

Theology

Supervising Professor: John V. Kruse, PhD

Cioni Simmons

Embracing Fratelli Tutti: A Framework for Nursing Practice

This presentation explores the intersection of *Fratelli Tutti* and the principles of nursing. These three central themes are solidarity, human dignity, and the common good- which are all essential to providing insights into ethical decision making and care delivery. Through an analysis of these themes, this presentation will aim to examine how nurses embody these principles by advocating for the well-being of all patients, addressing disparities within the healthcare system, and fostering compassionate care that results in better patient outcomes. Furthermore, it will explore the role of the themes from *Fratelli Tutti* and how it helps nurses to recognize the inherent worth and uniqueness of all individuals. By integrating the themes from *Fratelli Tutti* into the nursing principles, nurses deepen their understanding of the nursing principles and enhance their ability to provide holistic care to a diverse patient population. Through real-life examples, this presentation will demonstrate how the principles of solidarity, human dignity, and the common good can transform nursing practice and can contribute to health promotion, overall well-being, and social justice in a healthcare setting.

Ty'onna Wright

Inclusive Healthcare as a Response to Pope Francis' Call for Solidarity and Social Friendship

Marginalized communities such as immigrants and the poor, are known to experience inequality when it comes to accessing healthcare. These marginalized communities face numerous barriers to accessing healthcare, including financial constraints, language challenges, lack of insurance, and limited awareness of available resources. Both the immigrants and the poor often experience these disparities due to these barriers and biases within the healthcare system. In the encyclical *Fratelli Tutti*, Pope Francis advocates for a society based on friendship and solidarity, a society in which everyone is welcomed and valued. Pope Francis calls for dialogue, respect for differences, and cooperation for the common good. This call highlights the importance of trust and cultural competence in healthcare delivery. Inclusive healthcare and social friendship contribute by building trust, empowering communities, and advocating for health equity. The key to health equity is addressing disparities while advocating for a more inclusive healthcare system. Improved health outcomes would be a great result from adopting inclusive healthcare strategies for marginalized populations.

Skylar Bostedo***Nurturing Well-Being: The Psychological Rewards of Meaningful Dialogue and Relationships***

Have you ever not listened to what your friends or family were saying to you when their talking, or have you ever found yourself emotionally disconnected in relationships due to lack of active engagement? Creating both meaningful dialogue and relationships has psychological benefits. In his encyclical *Fratelli Tutti*, Pope Francis explains that, in order to create a more understanding and unified society we must start communicating with each other more meaningfully and foster interpersonal connections. When one is not engaged in good dialogue and fostering relationships, one's mental health can suffer from depression, anxiety, and suicidal thoughts. However, when one engages in good dialogue and fosters interpersonal connections, one's mental health can improve with increased self-awareness, improved self-esteem, and reduced stress. Especially during the COVID pandemic, dialogue and relationships became much harder for people to engage in and develop with one another. The pandemic left us separated from our loved ones, stripped away our sense of freedom, and left us feeling hopeless.

Giovanna Scuderi***Are My Facebook Friends Really My Friends? The Effects of Social Media on Relationships***

In an era defined by technological advancements and social media, Pope Francis advocates for a world in which social face-to-face dialogue is crucial. Pope Francis' encyclical *Fratelli Tutti* closely examines fraternity, communication, and relationships. Pope Francis dives into detail about how the world has lost its sense of interconnectedness with others. Society has a shared responsibility to promote the common good. Relationships and conversations promote this common good. Without having any of this dialogue, the responsibility of promoting the common good of society is not present anymore. Francis also emphasizes how much power plays a role in social media usage. Users are more focused on themselves and whether or not something will benefit their personal gain. If social media is used in a more positive and encouraging manner there is less room for negative effects. Social media usage does indeed affect how conversations are had and how much dialogue is present in the world today. This presentation will explore the negative effects of social media. Because social media brings about a lack of communication skills, spiraling mental health, and a disregard of societal norms, face-to-face dialogue is more crucial than ever.



Oral Presentations C

3:15 - 4:15 p.m.

Bachmann Main Building Room 331

Theology

Supervising Professor: John V. Kruse, PhD

Quron White

Causes and Means of Overcoming Indifference: Insights from Fratelli Tutti and Psychology

In his encyclical *Fratelli Tutti*, Pope Francis sees indifference as a major obstacle to a greater sense of fraternity in the world. There are many causes of indifference. Both Francis' exploration of the Parable of the Good Samaritan in *Fratelli Tutti* and the field of psychology provide insight into the causes and means of overcoming indifference. Personal life experiences also can provide insight into this important topic. Gaining insight into the causes and means of overcoming indifference can help promote the greater sense of solidarity that Pope Francis encourages.

Ashley Martinez

Through Our Eyes: Listening to the Stories of the Marginalized (Immigrants) in Response to Pope Francis' Fratelli Tutti

This presentation responds to Pope Francis' call as found in his encyclical, *Fratelli Tutti*, to listen to the voices of marginalized groups, like immigrants. It aims to amplify immigrant voices, validate their experiences, and build human fraternity through dialogue. The presentation first examines Francis's teachings on human dignity, the need to welcome migrants, and means of overcoming prejudices. Interviews of four immigrants and the child of an immigrant provide first-hand accounts of motivations for coming to the United States, difficult journeys, hardships faced in this country, and the desire to be treated with dignity. Their stories effectively underline the importance of Francis' plea to truly listen to migrants, see reality through their eyes, and open our hearts. The interviews counter common misconceptions, reveal overlooked daily struggles, and exemplify resilience and sacrifices made for family. The presentation concludes by connecting the immigrant experience to the call of *Fratelli Tutti* for solidarity, compassion towards others, and building bridges rather than prejudices against those seen as "different." It argues that opening ourselves to learn from those on the margins can inspire fraternity and push us to be better reflections of God's own inclusive love.

Madison Wright

Hamas-Israeli War Through the Lens of Pope Francis

For decades, there has been conflict and a series of wars fought in the Middle East between Israel and Palestine. The conflict is an accumulation of political differences regarding religious and territorial issues. On October 7, 2023, the Hamas terrorist group attacked Israel resulting in the death of about 1,200 citizens which the group attempted to justify because of the previous crimes and mistreatment against Palestinians. In response to their attack, the Israeli military ordered ground and air strikes in the Gaza strip which resulted in around 11,000 Palestinian casualties. Furthermore, there have been various war crimes committed against the Palestinians in Gaza and invasions of sacred Islamic buildings including the al-Aqsa Mosque. While both territories seem to have valid reasons for attacking the opposing side, it is evident that their hostility cannot be resolved through means of war and violence. This paper will comment on the current civil war between the nations of Israel and Palestine in relation to Pope Francis' 2020 encyclical *Fratelli Tutti*, to provide insight into possible solutions for this issue. More specifically, his statements on the main themes of human dignity, dialogue, and solidarity will be used to critique the dynamics of the current war in the Gaza strip.

Marcella Maughan

Unheard Voices: Society's Loss Then and Now

The study entitled "Unheard Voices: Society's Loss Then and Now" supports Pope Francis' message in *Fratelli Tutti* about the harm of suppressing voices. This study explores the suppression women in the Enlightenment period faced and compares it to the suppression of women in poverty today. Margaret Cavendish provides an example of a woman actively fighting suppression and ultimately losing during the period of the Enlightenment. The same ideas of suppression can be applied to people in poverty today. Society cultivates harmful, unfair generalizations towards impoverished women. This generalization leads to Pope Francis emphasizing our responsibility to care for those who are marginalized. A product of this statement is Oprah Winfrey who started from an impoverished childhood and rose to fame to contribute great things to society. The research conducted demonstrates that suppressed groups of people have a lot to offer the world. With the research of 18th century women people will open their eyes and hopefully not allow history to repeat itself with impoverished women today.



Oral Presentations D

3:15 - 4:15 p.m.

Bachmann Main Building Room 318

Cybersecurity, Media, Education

Mitchell Davis

Bitcoin and You

Supervising Professor: Thomas Dodds, PhD

Bitcoin and You is a presentation that explains the value proposition of bitcoin. By the end of the presentation the audience will know what bitcoin is, how it works and the underlying value proposition that provides bitcoin with so much monetary financial value. We will discuss monetary history, cybersecurity, blockchain technology and central banking. This talk is designed to expose the audience to the ideology and the technology that underpins bitcoin cryptocurrency.

Erin Donovan

How the Candidates of the 2022 Midterm Elections Were Visually Framed in the Philadelphia Inquirer

Supervising Professor: Janis Chakars, PhD

This presentation will discuss the 2022 midterm elections and how the candidates were visually portrayed. Images became a major source of information as voters were constantly presented with ads, articles, even memes plastered with pictures. Images presented showed the many different sides of each candidate and hoped to give voters a sense of who was qualified to serve in these governmental positions. While many complain about bias in the media, this study found a different approach and proved that while the media are influential, individuals consider many factors before making a decision on whom to cast their support. Many people say that the media brainwashes us into thinking about a certain ideal. My findings showed that people have the freedom and power to make their own decisions and to take the information presented to them and interpret it in their own fashion. People are not robots to be programmed, they have their own minds, feelings, and beliefs and at the end of the day they are more concerned with their values than with what is stated from a media news outlet.

Laura Navo

Unleashing Creativity: Transforming Education for the Future

In a world that is rapidly evolving, traditional education systems must adapt to prepare students for the challenges ahead. This presentation proposes a revolutionary approach to education that places creativity at its core. By nurturing and harnessing the power of creativity in the classroom, we can empower students to become innovative thinkers, problem solvers, and lifelong learners.

During the talk, I will explore the benefits of incorporating creative practices into the curriculum, such as arts integration, project-based learning, and fostering a growth mindset. I will share inspiring examples of schools and educators who have successfully implemented these strategies, highlighting the positive impact on student engagement, motivation, and overall academic achievement.

Additionally, I will discuss the role of technology in promoting creativity and how it can be leveraged to provide personalized and interactive learning experiences. By embracing creativity in education, we can equip students with the essential skills and mindset needed to thrive in the ever-changing landscape of the 21st century.

Join me on this journey to reimagine education and unlock the full potential of our students through the power of creativity!



Poster Symposium

4:30 – 6:00 p.m.

Bayada Atrium, Mirenda Center

ATHLETIC TRAINING, MS

Supervising Professor: Andrea Lobacz, PhD

Jonathan Baker

A01

The Effect of Ulnar Collateral Ligament Surgery on Performance in Throwing Athletes: A Critically Appraised Topic

The ulnar collateral ligament (UCL) of the elbow is located on the medial side of the joint between the humerus and ulna, and provides stability to the elbow, especially during throwing motions. Injuries to the UCL are very common in high school and college athletes that use an overhead motion in their sport. Following a tear of the UCL, patients often elect to have their UCL reconstructed, which is referred to as “Tommy John Surgery.” This technique is considered to be the gold standard for athletes who want to return to their sport after injury. More conservative options may be considered including UCL repair or rest and rehabilitation. Determining the best treatment for UCL injuries is important for athletes to understand implications on performance following return to their sport. This critically appraised topic (CAT) included three studies for analysis to determine the best treatment option for UCL injury. Based on the results of this study, there is moderate evidence that shows UCL reconstruction will allow for athletes to return to their sport and still remain competitive. Specifically regarding Major League Baseball pitchers, performance of pitchers may be decreased slightly after surgery, but it will still allow for the athlete to return to their sport and continue to play. Full reconstruction remains the best option for most athletes who have injured their UCL compared to other surgical interventions.

Wyatt Belotti

A02

The Effectiveness of Active Rest Reducing the Return to Play Time for Athletes that Suffered a Concussion: A Critically Appraised Topic

The prevalence of head injuries has risen to 1.5 to 3 million cases per year from sport or recreation activities. Common protocol for rehabilitation and returning to play has been to rest, inactively, until symptoms are resolved. Recent evidence suggests that active recovery following a concussion can expedite the return to play time while still having proper neurologic recovery. At this time, it is unclear how active recovery benefits the return to play protocol compared to the traditional protocol. The goal of this critically appraised topic was to determine if active rest improves recovery and return-to-play time for athletes that suffer a concussion. This analysis included cohort and systematic review studies at a level of evidence of 2 or higher. Results suggests that there is adequate evidence available to support active recovery improving the return to play timeline. A cohort study showed how inactive rest did not improve recovery times and another cohort

study showed the improvement in recovery times with active rest. Key findings showed that studies with a cohort that had an active rest group that achieved asymptomatic status prior to the full rest group. At this time clinicians may want to consider using a more active approach to recovery instead of traditional resting protocols.

Samantha Falk

A03

Investigating Alternative Treatment Methods to Aid in Treating Medial Tibial Stress Syndrome: A Critically Appraised Topic

Medial Tibial Stress Syndrome (MTSS), known as “shin splints,” is an overuse injury of the muscles connected to the tibial shaft. MTSS has a high prevalence rate in the athletic population. However, MTSS is believed to have several different causes that lead to its development. Therefore, deciding on the most appropriate treatment method can prove to be difficult for clinicians. This critically appraised topic aimed to uncover optimal treatments for MTSS, such as the use of range of motion (ROM) exercises and strength training, myofascial release (e.g., foam rolling and cupping treatments), cryotherapy, (e.g., ice bag or ice massage), as well as electrical-based (e.g., Transcutaneous Electrical Nerve Stimulation (TENS)) and soundwave-based modalities (e.g., Extracorporeal Shockwave Treatment (ESWT)). The measured outcomes were perceived pain via the VAS Pain Scale, flexibility/Range of Motion (ROM), and strength. The seemingly most effective treatment strategy for rehabilitating an individual who has been diagnosed with MTSS was ROM and strengthening exercises in order to strengthen surrounding tissues and increase ROM of restricted muscles. In terms of pain relief, ice and TENS treatments conjointly have been shown to be key modalities in this category. Based on the limited research, nondescript timetables of testing and following up, and variety of modalities used in the treatment of MTSS, moderate evidence suggests that further research is warranted in order to determine the most appropriate method of treating MTSS in active individuals.

Brittany Jefferson

A04

Return to Play After Athletic Pubalgia: A Critically Appraised Topic

Athletic pubalgia is an umbrella term, often referring to the diagnosis of a sports hernia, which is a strain, tear, or chronic pain in the lower abdominal or groin area; typically, of a muscle, tendon, or ligament. Physical rehabilitation is the recommended approach when treating athletic pubalgia. If rehabilitation fails to help and injury persists, there are surgical approaches that can help with repair. However, it is recommended that surgery be considered a last resort after failure of conservative treatments, at least 3 months from the onset of symptoms. The purpose of this critically appraised topic (CAT) was to determine if athletes with athletic pubalgia are more likely to return to play (RTP) sooner with or without surgery. Previous research has compared studies of either rehabilitative techniques or surgical interventions, but there is insufficient data comparing outcomes between rehabilitation and surgery. Analysis for this CAT includes a systematic review and two randomized clinical trials (RCTs). The systematic review used included 10 studies and over 450 patients, however, only one of the studies was a comparative study with a level of evidence of 2 or higher. Results revealed that although patients who underwent surgery to treat athletic pubalgia returned to their sports sooner, it is important that athletes still participate in a progressive rehabilitation program, whether it be before or after receiving surgery. While the systematic review used provided a condensed overview of the research in question, it would add value to the conclusion to have more RCTs and comparative studies to reference. Research should also include comparative studies of the different diagnoses to help better categorize the injury, and in turn, find more effective ways to treat them. When comparing ways to treat, it is important to consider modalities available for use and RTP protocols to follow, as they may also affect a patient’s treatment plan.

BIOLOGY

Supervising Professors: Amy Brown, PhD; William Cooper, PhD; Matthew Mastropaolo, PhD

Sanoussi Abdourhamane

B01

Effectiveness of Clove Bud Essential Oil (Eugenol) on S. aureus and E. coli

Food poisoning and spoilage caused by microorganisms results in enormous losses of food and has been of vital concern to public health. Many synthetic preservatives are used to control microbial growth in foods resulting in reduced incidences of foodborne illnesses and an extension in the shelf-life of food products. But studies have demonstrated the use of synthetic preservatives and chemical additives in food is causing poisoning, cancer, and other degenerative disorders. Innovative solutions for food preservation with quality maintenance are currently emerging. As a result, public concern has grown, as they desire to eat healthier products that use natural preservatives and compounds rather than synthetic ones. Clove is a highly prized spice used as a food preservative and for various therapeutic reasons. Clove essential oil and its principal active component, eugenol, indicate antibacterial and antifungal action, aromaticity, and safety as promising and valuable antiseptics in the food sector. In this experiment we use two different concentrations of eugenol (1030 ul and 380ul) on two different bacteria strains *Escherichia coli* and *Staphylococcus aureus* to study the effect of bacteria growth inhibition. The result shows that Eugenol at a concentration of 380ul slows down bacterial growth of *Escherichia coli* and *Staphylococcus aureus* while at a concentration of 1030ul, inhibits bacterial growth of *Escherichia coli* and *Staphylococcus aureus*.

Wilfred Bangura

B02

Does Ginger Have Antimicrobial Properties When Used as an Oral Antibiotic?

Ginger (*Zingiber officinale*) is a widely used spice and traditional medicine. Before the discovery of antibiotics, ginger was used to treat infectious diseases. Investigation into ginger effectiveness as an antimicrobial agent has produced mixed results. Some studies have shown ginger to have antimicrobial activity against *Staphylococcus aureus*, while others have shown that it does not.

Due to the contradiction surrounding ginger as an effective antibiotic where *S. aureus* is concerned, the purpose of this study was to confirm or deny that ginger has antimicrobial properties against it. Both ginger powder and ginger root extracts were tested to see if inhibition of growth of *S. aureus* would occur.

To do this, steeping times ranging in five-minute increments over ten-25 minutes were used to create aqueous extracts of both ginger root and powder (note the concentrations used in g/ml). These samples were then tested against *S. aureus* by the disk diffusion assay. Our results showed that neither the ginger root nor the ginger powder had an observable antimicrobial effect on *S. aureus* regardless of the steeping time. These findings support the idea that ginger does not have antimicrobial activity against *S. aureus* and that alternatives should be sought when it comes to fighting these types of infections.

Brandon Baskerville

B03

The Effects of Salt Stress on Plant Growth

Among a plethora of environmental conditions that plants face, one of the biggest is the conditions of the soil in which they are growing. The salinity of the soil hinders how much the plant is able to spread throughout its habitat. This is a study of the effects of the addition of different salts on growth, morphology, and overall health of a common household plant.

Copper's Contact Killing Properties and Staphylococcus aureus Control

Although sterile practices have become increasingly challenging to maintain due to the rise of antibiotic and disinfectant-resistant microbes, recent advancements suggest that copper surfaces possess the ability to effectively combat a range of pathogens through contact-killing mechanisms. This study aims to investigate the potential of copper's antimicrobial properties to enhance sterile techniques, focusing specifically on its impact on *Staphylococcus aureus*, a common healthcare-associated pathogen. *Staphylococcus aureus* was inoculated onto copper and stainless-steel coupons, serving as a control, and incubated for varying durations. The experiment monitored microbial growth over one hour, two hours, and 24 hours. Results revealed a substantial reduction in microbial growth on copper coupons compared to steel counterparts, indicating the efficacy of copper contact-killing. Moreover, the effectiveness of copper in eliminating *Staphylococcus aureus* increased with prolonged exposure time. This study contributes valuable insights into the potential of copper contact-killing as a bactericide, highlighting its superiority over conventional stainless-steel surfaces in controlling microbial growth. The findings support the hypothesis that copper's contact-killing properties can significantly enhance sterile techniques, paving the way for improved strategies to combat healthcare-associated infections. Future research may explore the broader applications of copper surfaces in healthcare settings and other environments requiring stringent microbial control measures.

The Effect of Moisture Content on the Bacterial Growth in Fruit

Fruits and vegetables have been constant reservoirs of foodborne illnesses and bacterial outbreaks all over the world. Within this arena, *Escherichia coli*, *Salmonella*, and *Listeria monocytogenes* have become the pathogens of greatest concern. It is well known that puncturing the outside tissues of fruits promotes the growth of microorganisms due to water loss and the release of nutrients. This research aims to determine if fruits with higher moisture levels will yield greater levels of bacterial growth. To begin, two tomatoes and two apples, with one of each cut in half, were used for this experiment. Each day of testing, samples from each fruit were inoculated on 5% sheep's blood agar. In addition, gram stains, catalase tests, and oxidase tests were performed for possible identification of any bacterial growth. On the final day of experimentation, the whole apple and whole tomato were cut open, and API 20E tests were performed on all four subjects for greatest possible identification of bacterial growth. All subjects, aside from the whole tomato yielded bacterial growth of gram-negative rods, testing positive for catalase and oxidase. Overall, the half tomato yielded the greatest number of bacterial growth. It is important to note that minimal bacterial growth was exhibited at the early stages of this experiment. This is concerning since it means that consumers may be at risk when eating fruit within one or two days from the purchase date. In conclusion, consumers need to be selective when buying fruit and avoid those with damaged outer tissues.

Kaitlyn Green

B06

The Synergistic Effects of Aspirin on the Antimicrobial Activity of Bacitracin

Rapidly increasing antibiotic resistance has demanded researchers to explore alternative therapeutic approaches. One alternative antimicrobial approach is the use of NSAIDs as a treatment modality. Acetylsalicylic acid, also referred to as aspirin, has exhibited antimicrobial activity against gram-positive bacteria. However, the synergistic effects have not yet been fully explored. It is hypothesized that aspirin could improve the efficacy of antibiotics, such as Bacitracin. In this study, the synergistic effects of aspirin with Bacitracin were explored using disc diffusion method against *S. aureus*, *S. epidermidis* and *B. cereus*. The minimum inhibitory concentration (MIC) of aspirin for each bacteria was identified and administered alongside 2048 µg of Bacitracin. A significant increase in the zone of inhibition was observed for all organisms exposed to aspirin and Bacitracin. A t-test confirmed greater inhibition of the two medications for *S. aureus* and *S. epidermidis* compared to *B. cereus* with a +16.66, -16.05, and +7.94 change, respectively. Further investigation is required to better understand the cause of further change in staphylococcus species.

Star Hargraves

B07

Preserving Freshness: Lauric Acid's Potential with Organic Strawberries

This study investigates the potential of lauric acid as a preservative for organic strawberries under varied temperatures. The goal was to examine lauric acid as a potential for a preservative by focusing on non-refrigerated settings, different environments, and the isolated impact of lauric acid. Unlike prior studies primarily using coconut oil or another fatty acid, the efficacy of lauric acid alone was directly examined. Additionally, this study performed on March 26, 2024, was sought out to address the relatively understudied area of organic strawberry preservation compared to conventional varieties. The main objective is to determine if lauric acid can serve as a natural preservative for organic strawberries. Through experiments utilizing concentrations of 1.1%, 1.2%, and 1.3% in room temperature (RT) and heat lamp (HL) environments, visual inspections reveal mold growth in the RT groups only, particularly in the control group from day 5 which is significant to present day. The next day little mold appeared on the 1.1% concentration RT group, day 6 and to present day the mold has not expanded. In contrast the strawberries exposed to the heat lamp show no visible mold growth by day 13. Later studies could examine the fundamental processes behind lauric acid's effectiveness and investigate the best ways to use it in different food preservation situations, offering insightful knowledge to the food industry.

Elizabeth Kalesnik

B08

Isolation of Polyphenol Oxidase Enzyme via Homogenization and Dialysis

The polyphenol oxidase (PPO) enzyme was isolated in homogenate samples from various masses of the mushroom *Agaricus bisporus*. The concentration and purity of the samples was determined through a Bicinchoninic acid assay (BCA), sodium-dodecyl sulfate (SDS) polyacrylamide gel electrophoresis, and an activity test using spectrophotometry. The homogenization showed decent protein concentrations and specific activity but did not show any bands on the protein gel. A precipitation of the homogenate showed protein bands for three of the four masses but showed very minute protein concentrations and specific activity. The purpose of this experiment was to determine the ideal mass where protein bands would be visible on the gel to verify isolation success.

Grounded Cinnamon's Effect on E. coli and Streptococcus oralis

Many different plants have compounds that have antimicrobial properties. Cinnamon is a spice commonly used in many different products. It has shown a potential as a possible antimicrobial to reduce the risk of bacterial disease. Grounded cinnamon has not been thoroughly researched on how it can affect bacterial growth. The purpose of this experiment is to determine the effects grounded cinnamon has on the growth of *E. coli* and *Streptococcus oralis* on solid media plates. T-soy agar plates were inoculated with *E. coli*, and blood agar plates were inoculated *Streptococcus oralis* then grounded cinnamon were added to the plates in varying amounts. with Cinnamon had no effect on bacteria growth in *E. coli* and *Streptococcus oralis*. The plates containing *Streptococcus oralis* were contaminated with a mold species. *E. coli* over grew the cinnamon on the plates. Future research can focus on using cinnamon water mixtures or more purified cinnamon samples to see their effect on bacterial growth.

Exploring Potential Treatments of Multiple S. aureus Strains: Using Antibiotics and Over the Counter Medications for Optimal Results

Staphylococcus aureus is a common bacterium that can cause various infections in humans. Understanding how different antibiotics and over the counter (OTC) medications affect different strains of *S. aureus* is essential for effective treatment strategies. The purpose of this experiment is to evaluate the antimicrobial susceptibility of an unknown *S. aureus* strain and a known *S. aureus* (29523) strain against a panel of antibiotics and OTC medications. The minimum inhibitory concentrations (MICs) of various antibiotics and OTC medications were determined using other primary articles. The antibiotics tested included penicillin, ceftolozane, daptomycin, and oxacillin. For the unknown *S. aureus* strain, all the antibiotics tested against it were effective except for penicillin, which showed resistance. The known *S. aureus* strain, however, was found to be susceptible, all of the antibiotics tested against it were effective, including penicillin. The OTC medications tested included Tylenol, Ibuprofen, Aspirin, amoxy 500, and diclofenac sodium. The unknown *S. aureus* was resistant to Tylenol, Aspirin, and Ibuprofen but was susceptible to amoxy 500 and diclofenac sodium. For the known *S. aureus* strain, it showed resistance to Tylenol, Aspirin, Ibuprofen, and diclofenac sodium but susceptibility to amoxy 500. What these results suggest is that the unknown *S. aureus* strain is a potentially methicillin-resistant strain, whereas the known *S. aureus* (29523) strain is a multi-drug-resistant one. Overall, the effectiveness of OTC medications against *S. aureus* is limited, and these medications should not be used as a substitute for antibiotics. While OTC medications may help alleviate symptoms of a *S. aureus* infection, they are not sufficient treatment on their own.

Chyna Mills

B11

Measuring the Salt Content of “Low-Sodium” Foods

High sodium consumption is a well-known cause of hypertension, stroke, and various other health complications. As a result, there has been a growing emphasis on reducing dietary sodium intake in order to promote overall health and well-being. This experiment investigates the sodium content of low-sodium and regular versions of common food products through titration. Samples of various foods such as ketchup, bouillon, and soy sauce were obtained in both low-sodium and regular forms. Each sample underwent titration using a standardized AgNO_3 (silver nitrate) solution as a titrant and K_2CrO_4 (potassium chromate) as an indicator. The titration procedure allowed for the determination of NaCl (sodium chloride) content in each sample. This study aims to provide valuable insight into the accuracy of sodium reduction methods in low-sodium foods compared to their regular alternatives, helping consumers make informed dietary choices. The findings of this study show that there may be discrepancies between the advertised amount of sodium and the actual amount of sodium in food products. However, further testing is needed in order to differentiate the presence of NaCl from the commonly used sodium substitute, KCl (potassium chloride).

Thomas Murphy

B12

The Levels of Sodium and Magnesium in Name Brand Water and Their Potential Effects on the Cardiovascular System

The human body requires many chemicals to run properly, all in moderation, sodium and magnesium are a great example of this. The ill effects of too much sodium are relatively common knowledge but, large doses of Magnesium can cause similar issues. Mild cases could cause an irregular heartbeat or low blood pressure and if left unchecked could lead to coma or even death. That being said sodium and magnesium are also crucial for your body's health. If you do not get enough magnesium, you could have higher risk of type 2 diabetes, weak bones, or even heart disease and blood pressure. You need to make sure you are getting enough without over doing it because either extreme could have devastating health effects. Water is the one absolutely necessary thing we should ingest every day that could be a great way to get or limit your sodium and magnesium intake. This being said most food items have nutrition facts that list exact amounts of ingredients, such as sodium or magnesium, where water bottles generally do not. One of my choices has a nutrition fact label because it is a flavored water and that will be used as a baseline. The results were all similar to each other in a way that was very unexpected but enough variance that if you are drinking a lot of water, it could be important to pick and choose your brand appropriately based on your necessary sodium and magnesium intake.

Antimicrobial Effect of Polymyxin B and EDTA

Antimicrobial resistance has become predominant in today's society as microorganisms have learned how to evade the effects of current antibiotics. Thus, it is important for researchers to work toward the development of new antibiotics or the enhancement of current ones. In a recent study, Hale et al. determined that Polymyxin B combined with ethylenediaminetetraacetic acid (EDTA) have a synergistic effect against *Pseudomonas aeruginosa* and *Staphylococcus aureus* via a broth dilution method. In light of these findings, we examined the synergistic effect of Polymyxin B and EDTA against two Gram-negative organisms, *Pseudomonas aeruginosa* and *Klebsiella pneumoniae*, and two Gram-positive organisms, *Staphylococcus aureus* and *Bacillus cereus*, via a disk diffusion assay and broth dilution assay. To perform these assays, a disk diffusion assay was done first to determine the minimum inhibition concentration (MIC) for each compound. After measuring the zones of inhibition in millimeters for the broad range of concentration tested, it was determined that upon confirming the MICs, the compounds were mixed and tested against the same organism via another disk diffusion method. Results showed that Polymyxin B had an antagonistic effect on EDTA due to the decreased zone of inhibition, which was the opposite of what Hale et al. cited in their paper. To validate these results, a broth dilution assay was also done. Unlike that of the disks, Polymyxin B exhibited synergistic effects when mixed with EDTA, confirming the results obtained by Hale et al. With mixed results, further studies must be done to explore the relationship between Polymyxin B and EDTA.

Effects of Grapeseed Oil and Cranberry Juice on the Growth of E. coli

Urinary tract infections (UTI's), affect on average 150 million people globally with recent research showing a predominant cause stemming from antimicrobial resistance (AMR). Antimicrobial resistance is said to be on the rise in patients who receive treatment for UTI's. It is believed that some strains of *E. coli* are producing an enzyme named "extended-spectrum beta-lactamases" which could make the bacteria become resistant to some antibiotics. In turn many patients are relying on folk tales such as drinking cranberry juice can flush out or even prevent UTI's. In doing this experiment the goal is to see if both cranberry juice and grapeseed oil can prevent the growth of *E. coli*. To achieve this goal grapeseed oil, and cranberry juice will be needed TSA plates as well. You will also need to incubate your plates for 18-24 hours, as this is the amount of time it takes for bacteria to grow inside of the human body. After the incubation process results showed that both cranberry juice and grapeseed oil did not inhibit the growth of *E. coli*. For future experiments dilutions could be made as well as mixtures of both grapeseed oil and cranberry juice. Also, the compound Procyanidins can be ordered in powdered form and applied directly to the plates. This would allow the person doing the experiment to see if that component specifically had any effect on the growth of *E. coli*.

Sophie Puciata

B15

Will There Be Any Significant Effects on the Weight, Root Growth, and Leaf Count While Growing Great Northern Beans With the Six-Carbon Sugars?

Over the course of three weeks, I used the distilled water and the six-carbons sugars; Manose, Fructose, Glucose, Galactose, and Sucrose as water additives to grow twenty-four great northern beans. Four beans were placed in each 200 mL beakers along with 4 cotton balls at the bottom. 1 gram of each sugar was measured out and mixed with 100 mL of distilled water. Once beans were placed in their designated beakers, I water them with 30 mL of their respective waters. Beans were covered with parafilm and placed in direct sunlight for a total of 8 hours daily. Beans were watered Mondays, Wednesdays, and Fridays. Once the experiment was completed, I noticed that Fructose, Sucrose, and Distilled H₂O all had root growth, stem growth, and leaf count. While the remaining Manose, Glucose, and Galactose did not. Fructose had the highest average of weight gain and Manose had the lowest average of weight gain. What caused the sugars to have such drastic differences, when all the beans had the same environment they were growing in?

Cecelia Schmeltzer

B16

Inhibitory Properties of Gallic Acid on *A. faecalis* and *E. faecalis*

Urinary tract infections (UTI) affect 50-60% of women and 13-14% of men in the world. When UTIs are not properly treated, it can lead to kidney infections which could lead to sepsis in the bloodstream. Cranberries and pomegranates have been used as a natural way to prevent infections. Phenolic acids have been seen as a main contributor as to why this works. In this experiment, gallic acid, which is one of the main phenolic acids in these fruits, was tested with two bacteria strains, *A. faecalis* and *E. faecalis*, using LB broth plates. The plates with the gallic acid and bacteria showed absence of growth in some areas due to the gallic acid. The results showed some inhibitory properties of gallic acid on two bacteria found in UTIs.

Keyshla Valentin Caban

B17

Optimizing the Adsorption of Known Bacteriophage; JaimeB: A Comparative Study of Divalent and Monovalent Salts

Calcium (a divalent cation) has been associated with successful adsorption properties of bacteriophage, which allows for a successful infection and replication within a bacterial cell. Divalent salts such as calcium chloride can stabilize bacterial cell surfaces to facilitate the adsorption of bacteriophages. For this reason, calcium chloride is the most common additive in media to isolate, purify, and magnify bacteriophages, allowing for phage adsorption. EE Cluster Microbacterium phage JaimeB was used as the basis to investigate the efficacy of CaCl₂ in comparison to the divalent salts BaCl₂ and MgCl₂ as well as the monovalent salts KCl and NaCl. Additionally, a sample devoid of cationic salts was tested. Efficacy was based on the number and size of plaques evaluated at a dilution of 10⁻⁴. Of all the cations tested, calcium displayed the greatest number of plaques while the least number of plaques were seen in the samples with no additional salt added. Although calcium displayed the highest number of plaques, all samples tested showed plaque formation using both serial dilutions plaque assays along with pick-a-plaque procedure.

Hannah Asaka
Lysol vs. Attitude

B18

E. coli, a gram-negative bacterium known to infect humans, was used in a study to evaluate the effectiveness of disinfectants on tile surfaces. Fourteen tiles were inoculated with *E. coli* broth and treated with various disinfectants according to labeled time frames. Swabs soaked in saline were used to sample the tiles, which were then streaked onto LB plates and incubated. Fourteen plates were analyzed, with growth observed on four. Notably, both plates labeled “Attitude - wipe immediately” showed growth, along with one out of two plates treated with “Lysol-10 secs” and one out of two plates without any disinfectant. Consequently, Lysol demonstrated greater efficacy than Attitude. Considering cost, Lysol, priced between \$3.99 and \$6.38, appears to be a more cost-effective option compared to Attitude, priced between \$4.02 and \$10.15.

Jaylah Flamer
Comparing Antibiotic Inhibition on Infectious Disease Bacteria Streptococcus Pyogenes

B19

Streptococcus pyogenes, commonly known as Group A Streptococcus, poses a significant public health concern due to its role in various infections ranging from mild pharyngitis to severe invasive diseases. Penicillin has historically been a frontline treatment for such infections, but emerging resistance challenges its efficacy. This study aimed to assess the susceptibility of *Streptococcus pyogenes* to four antibiotics - amoxicillin/clavulanate, ceftriaxone, oxacillin, and carbenicillin. In vitro susceptibility testing was performed using standard method, disc diffusion assays, Minimum inhibitory concentrations (MICs) were determined for each antibiotic, and zones of inhibition were measured to evaluate bacterial susceptibility. Results indicated that *Streptococcus pyogenes* exhibited no degree of resistance to the antibiotics tested. Despite adjustments in antibiotic concentrations and exposure durations, the bacteria persisted, suggesting a lack of bactericidal effect even at higher concentrations. These findings underscore the growing challenge of antibiotic resistance in *Streptococcus pyogenes* and emphasize the need for continued surveillance and development of alternative therapeutic strategies to combat infections caused by this pathogen. In conclusion, this study highlights the importance of ongoing monitoring of antibiotic susceptibility patterns in *Streptococcus pyogenes* to inform clinical decision-making and guide the development of effective treatment regimens in the face of evolving resistance mechanisms.

Jonathan Onimus
Modern Medicine Vs. Pseudomonas Aeruginosa

B20

Antibiotic resistance is a pressing issue for many microbial agents due to developing mutations and the over-usage of standard treatments. *P. aeruginosa*, the opportunistic pathogen that is most known to affect immunocompromised patients within a hospital setting, has the most potential to develop resistance against antibiotics since its genome contains the largest known resistance island with over 50 resistance genes. Thus far, *Pseudomonas aeruginosa* is reported to be resistant against various antibiotic classes. These include aminoglycosides, quinolones, and β -lactams. Recent studies have shown new approaches to treatment, utilizing alternatives to pharmaceutical drugs such as phage therapy and natural remedies. This research paper will further highlight the importance of modern medicine by testing the efficiency of bacteriophages and the plant flavonoid, Queritcin, in inhibiting *Pseudomonas* through disk diffusion and the spot test.

CLINICAL MICROBIOLOGY, MS

Supervising Professor: Jude Okoyeh, PhD

Abenet Addisu

C01

Comparative Analysis of Blood Culture Media Bottle Types: Evaluating Performance in the BD BACTEC™ System

In the clinical microbiology lab, the validation of BacTec media types is crucial for ensuring accurate detection of microbial growth. BacTec media types, such as the standard aerobic bottle and the aerobic plus bottle, have distinct ingredient profiles. Traditionally, microbial cultures were primarily cultivated using the standard aerobic bottle. However, with the incorporation of resins in the aerobic plus bottle, BacTec has claimed that the aerobic plus bottle offers enhanced recovery. Both the standard and plus bottles contain the same base ingredients (soybean-casein digest broth), however the aerobic plus bottle contain the active ingredients: nonionic adsorbing resin and cationic exchange resin. Ten different microbial strains ranging from Gram-positive/negative facultative anaerobes to yeasts were tested on both media types. Isolated colonies were selected from pure microbial plates to prepare a bacterial concentration of $\sim 3 \times 10^8$ CFU/mL in saline water. Each blood culture bottle was inoculated with blood and a bacterial suspension. The Time-To-Detection (TTD) was measured for each bottle type and strain. Afterwards, each blood culture bottle was gram stained and subcultured to confirm identifications. Each bottle exhibited stable growth conditions for the tested organisms, with some strains showing faster growth on the aerobic plus bottle. Overall, this study found that the aerobic plus bottle is a suitable replacement for detecting microbial growth.

ENGLISH

Supervising Professor: James Kain, MA

Erin Donovan

E 01

How Project-Based Learning Led to the Creation of a Student Website on Nature

In my poster I will include how our nature writing class collaborated and used project-based learning to create a website highlighting various assignments throughout the semester that allowed us to think both creatively and critically. According to PBLworks, Project Based Learning (PBL) is a teaching method in which students learn by actively engaging in real-world and personally meaningful projects. Our website highlights: journals of students time connecting with nature and feeling inspired by the beauty of the natural world, personal essays/ presentations on nature themes, students thoughts on Pope Francis's Laudato Si encyclical, resources for nature centers and gardens in the area to visit, PowerPoint presentations on famous authors who have advocated for nature and written about nature themes, as well as presentations on various natural environments, poetry, student created video content, letters from objects in nature and their perspective on how we view them, and even playlists with modern songs that remind us of a season and ambient sound to feel relaxed and at peace. Through our multiple pages we see the personality of each student and how nature has touched each member in many ways. Through this process we were able to gain valuable skills such as teamwork/cooperation, reflection, the authenticity to showcase our student voice, respond to challenging questions, and think outside the box. Plus, we were fortunate to have the guidance and support of professor Kain and the encouragement to try new things and challenge ourselves. All these pillars are essential in a project-based learning course. Our hope with the website was to engage others in the importance of protecting the natural world and to showcase how nature gives us the opportunity to find peace, be curious, be adventurous, and be an explorer of both beauty and knowledge.

HONORS PROGRAM - Senior University Honors Seminar

Supervising Professor: Richard Sayers, PhD

Kylee Bowen

H01

Combating the Mental Health Crisis: Readmission Rates

As the mental health crisis continues to play a devastating role within our communities worldwide, healthcare team members are tasked with the role of mitigating certain factors that enhance this crisis. Readmission rates to psychiatric facilities have been proven to play a major role in the mental health crisis, with psychiatric patients being amongst the most highly readmitted patients to healthcare facilities. Due to this, research was aimed at examining the factors behind readmission rates to psychiatric inpatient facilities, as well as evidence-based interventions that can be implemented into these patients' care to help reduce the risk of readmission. Additionally, a roundtable discussion was held to present some of the key research findings, as well as to discuss how healthcare team members can play a major role in helping to mitigate this continuing crisis. To conclude this specific research, the key initial research findings will be summarized, and the information pulled from the round table discussion will be heavily discussed.

Ava Irwin

H02

After the Flame

This poster will explore how hosting the Olympic Games affects the economy, environment, and society. It will look at both the positives and negatives of hosting a mega event and aims to reveal the overall impact. The process of becoming an Olympic host city starts with a careful evaluation of proposed Olympic projects or bids. This evaluation considers how well they fit with the region and country's existing development plans and the long-term goals of the Olympic Movement and International Olympic Committee. While hosting the Olympics can bring benefits like boosting the economy and gaining global attention, it also has drawbacks. These include the economic, environmental and societal issues that arise due to a mega event like the Olympics. Using images and descriptions of these various aspects, this poster will provide a balanced understanding of what it means for a city to host the Olympics and issues of the process of gaining the Olympic Bid.

Rachel Meehan

H03

The Power of Banned Books on the Teenage Mind

In the current world, books are being banned for a variety of reasons. Many of these books are written for young adult readers, and parents often want these books banned since they believe that these books can negatively impact their children. This poster will explore why these different books are banned and how removing these books could harm adolescents, particularly in terms of identity development. The teenage years serve as the time for people to discover who they are, and reading various books can help young adults form their identity. Since parents often cite the negative influences that banned books can have on teenagers, this poster will also examine how reading banned books could help or harm young adults. Adolescents can benefit from reading these books in various ways, such as recognizing themselves in the literature, learning about others and developing a sense of empathy, and feeling inclined to participate in service activities. However, a correlation between mental health struggles and reading banned books also exists among young adults. Despite this potential negative outcome, adolescents can benefit greatly from reading banned books. This poster will also explore how the issue of banned books can be resolved for future teen readers.

Kannitha Phosouvanh-Sythong
Incarceration: The New Slavery?

H04

The corrections system is dependent upon the criminal justice system in the United States. The central purpose of corrections is to supervise those arrested, convicted, or sentenced for criminal offenses. However, the corrections system is facing issues of legalized slavery, abuse of power, and the lack of resources towards inmates that need to be addressed. This research also focuses on the damaging effects on the public, inmates, and government due to these issues. Based on this research, there will be a proposal of new legislatives and training techniques.

Sandra Vijayan
AI's Socio-Economic Impact and the Role of Government

H05

The presentation consists of various topics relating to Artificial Intelligence such as automation (job replacement by robots), how AI impacts society, how it benefits businesses, and finally what government can do to protect current and future employees from the impacts of automation. I will also be discussing my own suggestions to address this crisis.

PSYCHOLOGY

Supervising Professor: Amanda Breen, PhD

Ameera Alade, Brielle Hargrove & Sheylen Mendez Desena ***The Impact of Peer Influence on Student Engagement***

P01

The goal of our study was to increase student engagement, also known as peer involvement, at the Center of Career and Professional Development. As Neumann students, we have witnessed the underutilization of the Career and Professional Developmental Center and specifically attendance at the Career Fairs they host. To evaluate the relationship between peer influence and student engagement, we designed and distributed flyers, physically and digitally, by posting the flyer on our individual social media accounts, to promote the Social Sciences Career Fair. We utilized the data from the Social Sciences Career Fair from the previous year of 2023 as our initial findings. One week before the Career Fair, an info table was held to distribute flyers and give students information about the employers in attendance. During the Social Sciences Career Fair, we encouraged students to join the Career Fair through verbal encouragement. This included asking students to sign in through a QR code provided by the Career and Personal Development Center. We hypothesized that the act of physically handing flyers to students would increase peer involvement and the number of students who attended the Career Fair. In 2023, 35 students attended the Social Sciences Career Fair. During this year's Social Sciences Career Fair, 81 students attended. Due to various factors, such as number of employers present, discrepancies in student sign in, and the opportunity for extra credit being offered, we were not able to draw any conclusions about how peer involvement may have played a role in the students' attendance.

Sean Devine, Lily McGovern & Anne Kimiri ***Increasing Male Neumann University Students' Utilization of Counseling Services***

P02

Our study addresses the underutilization of counseling services among male undergraduate students at Neumann University through targeted awareness campaigns and destigmatization efforts. The goal of our study was to increase the number of male students who access mental health care services available on campus. Utilizing the Health Belief Model, our research focused on increasing male students' attendance at Counseling Center and Timely Care appointments. The message included discussion points, such as how quick and easy it is to set up an appointment with Timely Care or the Counseling Center for Wellness (CCW). It also included a statistic about the percentage of men who experience overwhelming stress. We believe this messaged targeted male students' perceived susceptibility, severity, barriers, benefits, and ability to act. We delivered this message via digital advertising on campus TV screens. The advertisements encouraged male students to prioritize their mental health and to register for counseling appointments. Our hypothesis predicts implementing targeted awareness digital campaigns and destigmatization efforts will increase unique male Neumann University undergraduate student clients attending CCW and Timely Care appointments. Data is currently being collected on the number of unique male attendees at CCW and Timely Care appointments via the end of the Spring 2024 semester. A statistical analysis will compare this data to 2023 appointment records. Reporting results will examine the effectiveness of the chosen campaign in increasing men's utilization of counseling services and discussing implications for addressing men's mental health stigma on college campuses.

Promoting Respectful Snacking: A Social Contract Approach to Student Behavior in Academic Spaces

The goal of this study was to raise student awareness that resources need to be shared among all students and specially to decrease the number of snacks that students take from the library's front desk at a time. Neumann University's library is open every day allowing students and faculty to enter freely, and they provide limited resources for students and faculty to share with others. With this knowledge, we focused on a strategy to decrease the number of bags of chips from more than one to one per person taken from the library's front desk. This observational study used a poster during the intervention period to show social contract theory in order to decrease the number of bags of chips that students took. Social Contract Theory, which suggests that people agree to certain rules and norms in society for mutual benefit, was applied in this situation. The data was collected 2 weeks prior to the intervention, 2 weeks during intervention (when poster was posted at front desk), and 2 weeks after the intervention. We recorded the number of bags of chips taken approximately two times per week for each week over six weeks. We hypothesized that a sign with a message consistent with the social contract theory encouraging students to consider that there are limited resources, and they need to share with others. We also hypothesized that when the sign is removed students will revert to previous behaviors recorded in the pre-intervention stage and take more than one bag of chips.

SOCIAL WORK

Supervising Professor: Devon Ferguson, MSS, MLSP, LSW

Amyah Roberson***Navigating Challenges and Cultivating Growth: Insights from Supporting Neurodivergent Students in Higher Education***

In this poster presentation, I aim to highlight the efficacy of interventions designed to confront and overcome these hurdles. I also have observed recurring themes and patterns facilitating a deeper understanding of the multifaceted needs of this demographic, which I plan to discuss as well. Moreover, I will highlight interventions that have demonstrated success in addressing these challenges. This internship has served as a platform for my personal growth and professional development. It has provided me with hands-on experience in implementing evidence-based interventions, improving my skills with providing personalized support, while fostering an inclusive environment. Working with this population has also enriched my perspective, increased my education on neurodivergence, and strengthened my commitment to educate and advocate individuals about neurodivergent individuals.

THEOLOGY

Supervising Professor: John Kruse, PhD

Aliviana Fontello***Nursing Through the Eyes of Two Francises***

My project is in the format of a poster document. I have utilized the website Canva to relate the mission and values of both Pope Francis and St. Francis to the career/major of Nursing. The two values that I focus on are "Care for God's Creation" and "Human Dignity". I used clipart and pastel colors throughout the poster to appeal to viewers. The beginning provides an introduction to the lives of both Francises and Nursing. For each value I have provided a section on St. Francis, Pope Francis, and then Nursing. I end the poster with a few important takeaways from my research.

NOTES



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sponsoring today's event.



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Our presentation and poster judges:

Dr. Amanda Breen

Dr. Amy Brown

Dr. Janis Chakars

Prof. Devon Ferguson

Dr. Brinda Govindaraju

Dr. William Hamilton

Prof. James Kain

Dr. Ariel Kershner

Dr. Claudia Kovach

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Dr. Matthew Mastropaolo

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Dr. Rachel Welicky

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Dr. Amanda Breen

Dr. Amy Brown

Dr. Janis Chakars

Dr. William Cooper

Prof. Mary Kay Crowley

Dr. Thomas Dodds

Prof. Devon Ferguson

Dr. Etsuko Hoshino-Browne

Prof. James Kain

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