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Schedule of Events

8:30 – 8:50 a.m.	Welcome & University Awards Ceremony <i>Dr. Katherine Fell</i> <i>Dr. Darin E. Fields</i>	WTS
9:00 – 10:10 a.m.	College of Education <i>Dr. Julie McIntosh</i> Alumni Speaker and Awards <i>Ms. Mackenzie Wenner</i>	Old Main, Ritz
9:00 – 10:10 a.m.	College of Health Professions <i>Dr. Richard States</i> Alumni Speaker and Awards <i>Ms. Whitney Woodward</i>	Davis, 2225
9:00 – 10:10 a.m.	College of Sciences <i>Dr. Jeffrey Frye</i> Alumni Speaker and Awards <i>Dr. Jeanne Ann Stuckey</i>	WTS
10:15 – 11:25 a.m.	College of Business <i>Dr. Kirby Overton</i> Alumni Speaker and Awards <i>Dr. Johnnie Jackson</i>	Old Main, Ritz
10:15 – 11:25 a.m.	College of Arts, Humanities, and Social Sciences <i>Dr. Ronald Tulley</i> Alumni Speaker and Awards <i>Mr. Doug Jenkins</i>	WTS
10:15 – 11:25 a.m.	College of Pharmacy <i>Dr. Debra Parker</i> Alumni Speaker and Awards <i>Dr. Kyle Dresbach</i>	Davis, 2225
1:00 – 3:20 p.m.	Oral Presentations	Davis & CBSL
3:30 – 5:00 p.m.	Poster Presentations	Croy
3:30 – 5:20 p.m.	Reception Food, Raffle & Prizes	Croy

College Speakers



College of Education

Ms. Mackenzie (Macie) Wenner

Mackenzie (Macie) Wenner is a 2013 graduate of the University of Findlay, majoring in middle childhood education. She earned her master's degree in 2018 from Bowling Green State University in Curriculum and Teaching and this past fall ('21), she finished her MA in Learning and Technology from Western Governors University.

In October, Wenner won the Golden Apple Award for Outstanding Elementary Teacher in Hancock County. She has been teaching for nine years and currently teaches 4th grade at Wilson Vance Intermediate School. In her spare time she enjoys reading and helping her sister plan her wedding!



College of Health Professions

Ms. Whitney Woodward

Whitney Woodward graduated Magna Cum Laude from the University of Findlay in 2006 with a Master's degree in occupational therapy. During Woodward's time at the University of Findlay she was accepted into the Mayo Clinic's School of Medicine in Rochester, Minnesota to complete her clinical training & also served as president of the Student Occupational Therapy Association.

Woodward currently serves as the Regional Director of Operations for EncompassCare overseeing rehab operations for skilled nursing facilities, assisted living facilities, & outpatient facilities throughout Ohio. Woodward resides in Findlay, Ohio with her husband, Dustin, & two sons, Dylan & Logan.



College of Sciences

Dr. Jeanne Ann Stuckey

Dr. Jeanne Stuckey grew up in West Unity, Ohio. She earned a Bachelor of Arts in Science from the University of Findlay (called Findlay College at that time) and a Ph.D. in Biochemistry from Wayne State University School of Medicine. Stuckey went on to become a post-doctoral fellow in the Biophysics Research Division at the University of Michigan.

Stuckey currently holds three academic appointments: Research Associate Professor in the Life Sciences Institute, Research Associate Professor in the Department of Biological Chemistry, and Research Associate Professor in Biophysics. In addition, she is the Managing Director for the University of Michigan Center for Structural Biology.

The majority of her research focuses on structure-based drug design efforts to discover and optimize lead compounds for the development of new therapies for combating various forms of cancer. She collaborates with nonstructural biologists in both basic science and clinical labs to develop a structural biology aspect to their projects. Overall, Stuckey's work has produced 123 papers and several of our latest structure-based drug design efforts have resulted in 12 U.S. patents for new therapies to fight cancer, heart disease and liver toxicity (11,045,448; 10,500,194; 10,450,355; 10,391,175; 10,253,044; 9,884,841; 9,675,697; 9,580,430; 9,527,878; 9,120,744; 9,394,303; 8,691,184) along with biotech licensing of various optimized lead compounds.



College of Business

Austin Gardner

Austin is a proud alum of the University of Findlay. He received his undergraduate degree in Sport and Event Management (2017) and his graduate degree in Education Human Resource Development (2018). In college, Austin was involved with several campus organizations such as serving as the president for Student-Athlete Advisory Committee (SAAC), vice president of Fellowship of Christian Athletes (FCA), an Orientation Leader for 4 years, took part in the Dana Scholars Program, and was a member of the men's basketball team while being named captain twice during his collegiate career. Following his career at the University of Findlay, he worked for three years at Bowling Green State University as the Director of Player Personnel for the men's basketball team.

Over the summer, Austin explored new career opportunities back in the Findlay area. He began his new job as the workforce development coordinator for Raise the Bar Hancock County, a non-profit organization focused on preparing and connecting through education and training, an adaptive workforce for Findlay-Hancock County. Outside of his full-time job with Raise the Bar, Austin coaches the University of Findlay women's junior varsity basketball team, girls golf and boys basketball at Findlay High School, and is currently teaching a class at Owens Community College. He is excited to be back in Findlay and he is even a little more excited today being back at the University of Findlay.



College of Arts, Humanities, and Social Sciences

Mr. Doug Jenkins

Doug Jenkins is a 2002 graduate of the University of Findlay. During his time at UF Jenkins served as the student general manager of 88.3 WLFC. He spent nearly 20 years working in radio, 14 of which were spent as a news director at 1150 WIMA in Lima and 1330 WFIN in Findlay. He also served as a play-by-play announcer, show producer, morning show host and sports talk radio host at various times. Jenkins led his newsrooms to be named the best small market news operations in Ohio among other awards for breaking news coverage.

Jenkins now serves as the Membership & Events manager at the Findlay-Hancock County Chamber of Commerce, where he has been for nearly three years. He has blended his knowledge of media into Chamber operations in an effort to better serve members of the Findlay and Hancock County business community.

Jenkins has been married to his wife Rebecca for 15 years and has three children. In his spare time he enjoys golf and home automation projects.



College of Pharmacy

Dr. Kyle Dresbach

Kyle Dresbach is a leader of the Digital Pharmacies at CoverMyMeds where he delivers innovative patient access, adherence, and affordability solutions to enable the CoverMyMeds mission of Helping Patients Get the Medicine They Need to Live Healthier Lives. His responsibilities range from strategy formulation and new product development to the delivery of operational excellence.

Dresbach's most fulfilling professional achievement is his service to our country. Upon graduating from the University of Findlay with his Doctor of Pharmacy degree in May 2014, he joined The United States Air Force through the Health Professions Scholarship Program. During his time serving in the military, Dresbach led Pharmacy Operations at McConnell Air Force Base and served as the Executive Officer to the Medical Group Commander during his final year of service. Upon separating, he continued to serve the heroes of our nation as the Associate Director of Pharmacy at the Department of Veterans Affairs in Columbus, Ohio.

Going all the way back to his college years leading various professional organizations at The University of Findlay, Dresbach's passion has been for leading strong teams to produce extraordinary results. To broaden his scope of business knowledge, he spent two years at The Ohio State University – Fisher College of Business and obtained his Executive Master of Business Administration in 2019.

Dresbach's wife, Katie (Wilburn) Dresbach, is a 2013 graduate of the Master of Occupational Therapy program at the University of Findlay. During their time together at Findlay, the two led various organizations across campus. Since graduating, the two have enjoyed traveling together and spending time with their three young kids: Kade, McKenzie, and Krue.

Oral Presentations

1-1:50 p.m.

GUPTA (CBSL 237)

Cultural Changes in Japan and America: Through the Window of Music in 1907-Present

Abigail Campbell, Leah Alsept, Desiree Smith, Somer Freeman, Joshlyn Criswell, Hana Suzuki, Hiroko Okuda, Taiki Yoneyama, Yuma Ono, and Yuta Kobayashi
Sponsors: Hiroaki Kawamura and Greg Mott

The five Japanese and five UF students collaborated on a common global topic through the OSGSP (Ohio Saitama Global Speaker Program). They chose to focus on music culture and its changes reflecting on the socio-cultural and political environment in Japan, US and the world throughout the recent five decades. The students were divided into five groups, each of which consists of one Japanese and US student with an assigned decade ranging from 1970 to 2020. Each group researched the music of their given decade in the opposite country in which they live, using each other, along with family and friends, as resources. Through this semester long cultural exchange, we have collected musical trends from Japan and America over five decades. This presentation will share the results of these collaborative research activities between Japan and the US with Japanese students participating in the presentation via zoom.

1-1:20 p.m.

DAVIS 1121

Cytotoxic Effects of Fungal Extracts

Elizabeth Csukker and Madeline Nartker
Sponsor: Michael Edelbrock

Fungi compete with other microorganisms by releasing chemical defenses such as secondary metabolites to survive in a niche environment. Yeast is a eukaryotic cellular organism that serves as a model for human cells. Fungus that exhibited bioactivity against yeast using the Kirby-Bauer disc diffusion assay were selected to generate extracts for putative activity against human cancer cells. Bioactive fungi were selected and grown in pure culture and in competition with another fungus that similarly displayed anti-mycotic properties. Extracts were prepared from fungus using ethyl acetate as the solvent. Our hypothesis is that extracts from fungus grown in competition with one another will have greater bio-activity against the human colon cancer cell (HCT-116) than extracts produced from the same fungus grown in pure culture.

WHITSON (CBSL 232)

The Effects of a Four-Week Home Yoga Program on the Core Endurance and Strength of Healthy Adults

Taylor Verbsky, Chloe Marburger, Sadie Batchelor, Matt Reibly, and Paityn Werner
Sponsor: Nicole Schroeder

The purpose of this study was to determine if a four-week home yoga program increases core endurance and strength in a healthy adult population. Subjects: 53 healthy adults, recruited from a small rural university. Methods: Subjects were randomly assigned into exercise or control groups and cleared for light to moderate exercise. All subjects participated in baseline testing. Subjects of the exercise group were assigned a program. Subjects of the control group were instructed to refrain from changing their current exercise routine. Following a four-week period, subjects returned for post-test assessments of upper and lower abdominal strength and core endurance. Results: Analysis revealed a significant effect of time, however, the main effect comparing the exercise and control group was not significant. Conclusion: This study confirms the use of a 4-week yoga program does not increase core strength and endurance as compared to a control.

SEMINAR (CBSL 248)

Creating Safer Environments Through Crime Research and Prevention Techniques

Kaylee Davis
Sponsor: Minxuan Lan

Crime hotspots are influenced by numerous factors depending on the cities that the crime inhabits. Some factors may include the population, drug legalization, poverty rate, negative social environments, economics, and the amount of police training authorities receive. Furthermore, applying the correct strategies to enforcing the law within these areas can ignite a safer environment for those living in dangerous cities. With the findings from the comparative research of Littleton, Colorado, and Mansfield, Ohio, we can come up with possible suggestions on how to make cities in the U.S. with high crime rate more secure for their society.

BEALL (CBSL 220)

Creating a Bridge Between Worlds: Connecting Origin Stories Across Different Cultures

Amanda Gigante

Sponsor: Nathan Tice

Throughout history, there has been a debate on how the world was created between different religions. These creation stories often create divides between religious groups because people often only focus on differences. Most differences are viewed as obscene, and some religious people feel their faith is threatened by another belief. This presentation will focus on multiple creation stories from other cultures, and they all will be compared to traditional Christian beliefs. These comparisons are beneficial to help relate the Native American cultures and their beliefs to the Christian faith because it allows for interrelations to be made. The main goal is to educate people on the similarities of the Navajo, and Sioux cultures when in comparison to traditional Christian beliefs. In the end, this will help get rid of the stigma that different religious creation stories are what should confine people to only interact with a specific religious group.

DAVIS 181

An Unconventional Approach to Conducting Impactful Research

Morgan Kuhlman, Hannah Otley, and Alyssa Harris

Sponsor: Allison Baer

Research comes from asking genuine questions. Those questions often lead to answers that can change lives in different ways. Authentic questions have led researchers to find cures for cancer, a vaccine for COVID-19, and research-based strategies for improving classroom instruction. As future educators, we know the importance of student-owned research and how it can be used in our teaching to help our students become thoughtful readers and researchers. Our own research led us to find answers to perplexing questions we had about relevant topics.

DAVIS 186

Burnout in Juvenile Correctional Facility Personnel

Victoria Williams

Sponsor: Nicole Williams

The purpose of this study is to investigate juvenile correctional facility personnel burnout. To do so, the researcher will request juvenile correctional facility personnel complete the Copenhagen Burnout Inventory (CBI) which addresses three constructs: 1) personal burnout, 2) work-related burnout, and 3) client-related burnout. This study is dually significant in that it provides a necessary opportunity for juvenile correctional facility personnel

to reflect on their personal and professional secondary trauma experiences, specifically related to burnout. Despite the wealth of literature existing on the value of prison personnel and their influence on the overall success of the correctional facilities, comparatively neglected is literature on juvenile correctional facility personnel impact during experiences of secondary trauma and the resulting burnout that may occur.

DAVIS 102

Fractals – What and Where Do They Come From?

Adam Hornak

Sponsor: Daniel Baczkowski

The idea of fractals is relatively difficult to grasp. To understand it, one should visit the moment where it all began. This presentation will guide the audience from the invention of the fractal concept 500 years ago to its present definition by Karl Weierstrass and Benoit Mandelbrot. In addition, the connection to the chaos theory and examples to its practical applications will be covered. In fact, these peculiar shapes are all around us occurring in nature and technology making our lives easier even though one might not notice it, which makes it even more of an interesting model.

CHARNES (CBSL 249)

Student Insights on Experiential Learning: Study Abroad

Satarupa Banerjee

Sponsor: Nabarun Ghose

Regardless of major or wanting to widen knowledge of career opportunities around the world, studying abroad can be instrumental for learning cultural and operational practices which students won't find back home. Entrepreneurs and startups are thriving all over the globe in this hyper connected world. If a student wants to learn about global opportunities, studying abroad is a great way to have unique experiences and learn lessons that they can apply to climb up their career ladder. While the theoretical principles of business remain the same, business in each country is vastly varied. Studying business management in a foreign nation will provide a student with unique insights into customer mindsets in both their host country and any other countries where they study. This interactive presentation provides student expectations. The learnings will be valuable for designing and selecting meaningful study abroad.

1:30-1:50 p.m.

BEALL (CBSL 220)

Feeding Faith Through Vegetarianism

Luke Miller

Sponsor: Nathan Tice

Religions each have varying dietary restrictions for humans based on their core beliefs and sense of spirituality. Contrary to common misconceptions, the vegetarian diet ties into Christian beliefs and is a lifestyle chosen by members of the faith for religious purposes. To see vegetarianism as beyond just a lifestyle choice and as having a basis in faiths such as Buddhism and Hinduism, as well as Christianity, it is important to understand the connection between diets and religious faith. While there is a lack of scripture in the Bible that requires a vegetarian diet, there are sections that, depending on interpretation, can support God's intention for humans to be vegetarian. Along with scientific evidence looking at how the body is more adept at living off of plant-based sources, it is possible to view how the human body was designed or developed with primarily the vegetarian or even vegan diet in mind.

DAVIS 1121

Female Mate Preference in Captive Population of Bluefin Killifish (*Lucania goodei*)

Kyra Znaczo

Sponsor: Brandan Gray

Aspects of body size and morphology affect swimming ability and courtship performance in wild populations of bluefin killifish (*Lucania goodei*). In captivity, artificial selection, relaxation from predation, sexual selection, and drift can lead to combinations of behavioral and morphological traits that would not often be observed in wild populations. We tested whether variation in traits associated with courtship and locomotion in wild bluefin killifish explained variation in courtship behavior in a captive population. We compared five morphological traits among the three bluefin killifish color morphs represented in our sample with a PERMANOVA ($n=18$ males). We ran female mate choice trials for 14 captive-bred females. We presented individual females with a randomly chosen pair of males. We quantified courtship and female behaviors for each female to generate a multivariate proxy to be used in models exploring whether male morphological and behavioral traits explain variation in captive female preference.

CHARNES (CBSL 249)

The Future of Space Law: An Introduction to International Law Concerning Private Enterprises in Space

Andrew Sparks

Sponsor: Mark Polelle

With the rise of non-governmental actors participating in the space race today, one is left to wonder if our current form of international law applies to private enterprises such as SpaceX. The current treaties that govern space usage is out-of-date and in need of a change in order to keep peace, environmental and human rights a clear focus as these companies move forward with space exploration and colonization. To do so, we must evaluate why these issues are important and realize that the future of humankind in space is almost upon us.

DAVIS 102

Breaking the Secret Writing: Cryptanalysis of the Vigenère Cipher

Jacob Sanders

Sponsor: Daniel Baczkowski

The Vigenère cipher is a classical encryption method which uses multiple alphabets to scramble a message. For many years, it resisted attempts to be broken. Its simple to use, yet robust method of encryption led some to believe it was unbreakable. However, in the late 1800's a German officer discovered a new way to analyze and crack the cipher. There are many methods cryptanalysts can use to break these classical ciphers involving both mathematics and linguistics. This presentation will cover some history of the Vigenère cipher, how to encrypt and decrypt messages using it, and how it was finally broken, along with methods to strengthen it and other attacks cryptanalysts may use to attack classical encryption.

DAVIS 181

Incorporating Students' Interests

Lyndsey Seamon, Emma McMaster, and Megan Mckee

Sponsor: Julie McIntosh

Our research is based around a trip we took to Green County Career Center in Xenia, Ohio. This trip sparked an important question for us. How can we incorporate hands-on learning, such as that in a career center, into a regular school? We understand that regular schools do not have the funding like the career center, so we investigated how we might be able to incorporate students' future career interests into our classrooms without the expensive equipment. We also took a look at the Career X program that was geared towards students with disabilities to learn life skills, along with skills that they will need for

the correct career outside of the classroom. Data showed that by understanding the importance of student interest, students may be more successful both inside and outside of school.

DAVIS 186

The Creative Process of Picture Books

Mikaila Jennings

Sponsor: Valerie Escobedo

Picture books are a part of everyone's childhood. The bright color and engaging illustrations made flipping through the pages exciting. In schools, teachers use picture books to educate children about a variety of topics, and as a picture book illustrator, I think it is important to take note of the trend and create books that are entertaining and educational. I have been working on my book *Bearly Left*, a story about how humans have impacted the bear population around the world for about two and a half years. During this time, I have worked through many stages of the picture book illustration process; from research and writing to storyboarding and the creation of the final artwork.

2-2:20 p.m.

DAVIS 181

Mental Health Effects of the Pandemic on Students and Teachers

Jordan Foster, Cecilia Wurm, and Kayla Johnson

Sponsor: Julie McIntosh

Throughout the pandemic many things have changed for the entire world. One thing that has drastically changed is the education system. The education system was the first thing to change in response to COVID-19 and one of the last things to go back to normal. Students have missed important times and the stability of the classroom since 2020 and most of the negative long-term effects are still to come. Despite not knowing exactly what our new normal looks like in the schools, we need to become aware of the effects and question how students have changed. How has the pandemic affected students and teachers and how can we be better prepared as educators to handle these mental health struggles?

SEMINAR (CBSL 248)

The Effects of Prolonged Exposure to Trauma

Olivia Somich

Sponsor: Robin Walters-Powell

Prolonged exposure to trauma can have long-lasting effects on the body. This study aims to find the possible effects of trauma and how trauma affects the body in physiological, neurological, and psychological ways. The researcher will use mixed methods including an interview and a survey, as well as second-hand data from medical charts at the agency. Participants will include individuals aged 18 and older who already receive services at Coleman Health Services in Lima, OH, and who have had previous experience with trauma. The researcher expects to find significant evidence linking exposure to prolonged trauma and later physiological, neurological, and psychological conditions and deficits.

BEALL (CBSL 220)

The Evolution of Sex and Power Dynamics

Dory Evans

Sponsor: Nathan Tice

In an ever-changing society in terms of gender, its fluidity, and the patriarchal social system, many believe that the Bible agrees and supports the preceding male chauvinistic mentality society held. While the Bible details man as the head of the household, it does not instruct them to dominate the planet. It's important to comprehend that God intended society to look like a partnership between man and woman, and evolutionary biology and psychology have kept up with this original plan. A 1999 book titled "Ever Since Adam and Eve: The Evolution of Human Sexuality" by Malcolm Potts and Roger Short details the evolutionary perspective of the ongoing battle of the sexes. It explains how biologically important women are, yet they are treated with a level of respect not equivalent to their importance to the world. Further research and developments in science explain what God's original social structure was intended to be.

DAVIS 102

Comparing Moisture Level and Larva Size in Livestock Manure Weight Reduction Using Black Soldier Fly Larvae

Susan Grube

Sponsor: Yanting Guo

The University of Findlay produces over 6,000 tons of manure every year. The sustainable use of this waste is a challenge we set out to achieve. The Black Soldier Fly Larvae (BSFL) can convert manure efficiently into protein-rich animal feed. The objectives of our research are to find the optimum moisture level for different combinations of

Oral Presentations (Continued)

livestock and horse manure using BSFL, and to determine if the size of the BSFL affects the weight reduction. The use of BSFL significantly reduced the amount of manure in different manure combinations and BSFL sizes. There was not a significant difference between the combinations. The size of the BSFL did not significantly affect the weight reduction.

OSTRANDER (CBSL 221)

Keeping the Minds of Athletes in the Game

Taylor Christensen

Sponsor: Amy Rogan

Mental health is an important, but often overlooked issue among student athletes. To help universities better understand the mental wellness of their athletes, and how to deal with these problems in a safe, effective way, The National Collegiate Athletic Association has created the Mental Health Best Practices document. After this was created, universities could access the information to implement their own best practices on campus. The University of Findlay took action in creating their own plan. The stories of University of Findlay athletes, athletic staff, and sports psychologists will determine if this plan is successful in helping those students who may be struggling.

CHARNES (CBSL 249)

Short Term Memory and its Effects on Change Detection for Objects and Faces

Hope Snider, Evan Brock, and Chloe Eppeley

Sponsor: Adam Larson

How good are you at detecting changes in your environment? Changes can consist of replacing one object with another, or one person with another. 50% of people fail to notice either change. Our study tests how change detection varies when using short-term memory. Participants were presented with a study screen containing objects and/or faces arranged in a circle for either one or four seconds. Afterwards, a test screen was presented to the participants, which contained the same stimuli as the study screen, or a change in one object or face. Participants indicated if the test screen matched the study screen. The results show that more time to encode items into short-term memory improved change detection for objects, but not for faces. This suggests better short-term memory representations support change detection performance, but this effect is dependent on the item encoded. Future research will examine change detection with long-term memory.

GUPTA (CBSL 237)

The Perception of Health among College Students in Northwest, Ohio

Haruka Furuichi

Sponsor: Hiroaki Kawamura

Can we draw a line between being healthy and not healthy only based on biological data? In 1948, The World Health Organization (WHO) defined health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” This holistic definition covers not only biological but also psychological and social variables. What makes people feel “I’m healthy?” For this ongoing study, college students were interviewed with the aim of developing an understanding of their perception of health. The study also tries to understand what students think they would need to have access to in order to be healthy. With the ethnographic approach, this study collected and analyzed qualitative data on the perception of health through interviews. The findings have implications for developing a wellness program for college-age adults in the future.

SEMINAR (CBSL 222)

Man-eaters and Empowerment Through Challenging Menstruation Stigma

Katlin Shuherk

Sponsor: Christopher Medjesky

Menstruation, periods, the curse - while a natural and vital occurrence in the female journey to adulthood, the monthly event has historically been stigmatized in society and popular culture. Looking to popular television shows, movies, and even figure heads from the last decade and a half, we can see troublesome and belittling language revolving around menstruation: South Park, Bigger, Better, Uncut (1990) “I just don’t trust anything that bleeds for five days and doesn’t die.” Kick Ass 2 (2013): “Oh, take your tampon out, Dave!” Former President Donald Trump: “Blood coming out of her wherever (CNN, 2015).” An acceptance of proscriptive language and behavior towards menstruating persons has created a culture in which women are oppressed due to the taboo of the female pubescent body. Out of this, there has been a grassroots effort to empower those who experience menses through the outlet of feminist comic books such as Man-eaters by Chelsea Cain. This presentation explores the feminist text Man-eaters and how Cain approaches the topic of menstruation and oppression in a way that does not shy away from the taboo topic. Through analysis of Man-eaters and literature such as Shauna M. MacDonald’s article “Leaky Performances: The Transformative Potential of Menstrual Leaks”, I will argue that feminist comics and texts are vital tools that break barriers to empower women and girls to begin to view womanhood - and everything it entails - as a way to challenge the systems which oppress.

2:30-2:50 p.m.

BEALL (CBSL 220)

Synthesis and Characterization of Fluorinated Pyridazines and their Biological Applications

Hannah Dendinger

Sponsor: Nathan Tice

Fluorinated heterocycles are a major component of the field of modern medicinal chemistry due to the widespread presence of heterocyclic ring structures in naturally occurring biological molecules. Heterocyclic compounds are susceptible to fluorine substitution, which can be used to modify the physicochemical properties of synthetic drugs. Pyridazine is an aromatic six-membered ring with a chemical formula (CH)₄N₂. Our proposed method incorporating a previously reported route will involve the fluorination of 5,6-fused ring pyridazines with a variety of substituents at the 1- and 4-positions. We hope to observe substitution at the N-H site on the pyridazine with pentafluoropyridine. The target products will be characterized by IR, ¹H NMR, ¹³C NMR, and Mass Spectrometry. This presentation will also discuss the biological applications of these compounds and their possible anti-cancer properties.

SEMINAR (CBSL 222)

Fatphobia is the Endgame: Weight Stigma in the Marvel Cinematic Universe

Montana Kitchen

Sponsor: Kit Medjesky

While the multi-billion-dollar Marvel Cinematic Universe franchise successfully portrays a diverse range of characters, there is a significant lack of representation of fat bodies within its worldbuilding. More importantly, the rhetoric around the minimal fat bodies that are represented is detrimentally fatphobic because it invites the audience to openly laugh at fat bodies. This reinforces negative tropes and is deeply problematic due to the link between fatphobia and racist stereotypes which equate physical appearance to moral character (e.g. bumbling, lazy, incompetent, etc.). This critical analysis uses the media framing theory to examine Chris Hemsworth's portrayal of the Norse god, Thor, in "Avengers: Endgame," and the weight stigma directed at his character's physical appearance. While the portrayal of a superhero in a fat body is welcomed, the negative rhetoric aimed at his body was unconstructive and detrimental.

SEMINAR (CBSL 248)

Exclusion: How LGBTQIA+ Youth are Omitted from School-Based Sexual Education

Abigail Starcher

Sponsor: Robin Walters-Powell

What would true comprehensive sex education look like for youth in regard to curriculum and how can policy support these changes to health education in schools? This study focuses on how LGBTQIA+ youth are consistently excluded from sexual education curriculum in schools, thereby perpetuating societal norms of heterocentricity and eliciting poor health outcomes for students. Surveys and interviews were administered in an internship setting and juxtaposed with previous literature regarding LGBTQIA+ youth and sex education to determine what changes could be made to curriculum and policy to improve the inclusivity of the education provided.

DAVIS 181

College of Education Scholars Program and Hilliard City Schools

Morgan Kuhlman, Taylor Jones, Ryan O'Flanagan, Kaylee Wheat, and Ruthanna Sparkman

Sponsor: Julie McIntosh

We will be presenting an overview of the COE Scholars Program and Innovation at Hilliard City Schools.

OSTRANDER (CBSL 221)

Coronavirus Misinformation Across Cultures

Leah Alsept

Sponsors: Amy Rogan and Fang Wang

Misinformation is prevalent in not only America, but the entire world. This video project sets out to understand Chinese and American culture around reacting to misinformation and ultimately bring media literacy to the forefront of education. This project identifies the coronavirus misinformation presence found on both American and Chinese social media and takes into account the perspectives of college students on identifying the misinformation. Social media opens the gates of the news cycle to anyone willing to post, and often, users online will not research what they post and share. Media literacy is imperative to understanding and sorting through factual and fake information online. The coronavirus disease has not only exacerbated the posting and sharing of misinformation, but it has also harmed people in the process.

Oral Presentations (Continued)

WHITSON (CBSL 232)

Simulation of Voltage Across a Cell Membrane under Electric Pulses

Ella Cornwell, Seth Rothlisberger, Matilda Jeruto, and Jordan Lewis

Sponsor: Jordan Ringenberg

This project provides a numerical simulation of a voltage across a cell membrane under electrical pulses to help determine ion channels and other cell functions. This is done by the user inputting various fields of data, which the program will evaluate and perform various Fourier transformations and calculations to obtain the electric potential distribution and overall electrical potential across a cell membrane. As a result, the user will be given coefficients at each frequency, the values of the electrical potential distribution and overall electrical potential, as well as a diagram of the electric field distribution across the cell membrane. Research can be further done to check how the membrane voltage is affected by applied electrical pulses and other biological constants in cancer or other cells.

DAVIS 102

Using Black Soldier Fly Larvae for Sustainable Organic Waste Reduction and a Zero-Waste Campus

SioHeng Wu

Sponsor: Yanting Guo

Using Black Soldier Fly Larvae (BSFL) to reduce food waste and animal manure is an innovative way to solve organic waste problem sustainably. The BSFL can convert large amount of organic waste into protein-rich animal feed in a short period of time (around 20 days in optimal condition). The objectives of our research are to find the optimum moisture conditions for reducing horse, cow and sheep manure using BSFL, and to apply this bioconversion project to create a zero-waste campus at the University of Findlay. Our results find that water content in manure and ambient humidity has similar impacts on the rate of manure reduction by BSFL. Other factors such as different kinds of bedding, and growing of micro-organisms also play a role on the reduction rate by BSFL.

3-3:20 p.m.

DAVIS 181

The Mindset of an Innovator

Brianne Greer

Sponsors: Julie McIntosh and Diana Garlough

The innovator's mindset is a growth mindset, with the addition of creating new and better ideas. Throughout my presentation, "The Mindset of an Innovator", I will be sharing about this newer mindset and how it can be put to use in the classroom. My research is based heavily on the book "The Innovator's Mindset: Empower Learning, Unleash Talent, and Lead a Culture of Creativity" by George Couros. Along with this, three schools in the state of Ohio have influenced my study.

OSTRANDER (CBSL 221)

The Impact of the Dayton Dragons on the Dayton Community

Matthew Miller Search

Sponsor: Amy Rogan

As a country, we take in a lot of sports whether it is on TV or in person. My curiosity led me to wonder about the impact of sports on the local communities they reside in. Most people do not realize the jobs, infrastructure, philanthropic ventures, and pride a local sport can give to a community. My goal is to find the impact of the Dayton Dragons who are a High A affiliate of the Cincinnati Reds on the Dayton community. The Dragons became part of the community with their inaugural season in the year 2000. This came with a hefty price tag of over 26 million dollars. I was curious to find out if the money put into the team paid off.

SEMINAR (CBSL 222)

Readings from Novel Writing Workshop

Emily Henthorn and Eden Middleton

Sponsor: David Essinger

ENGL480 Novel Writing Workshop has been allowing students to develop their novel length creative endeavors. Giving students time and consistent dates to regulate the installments in their novels. The workshop consists of a student being forth their recent installment of their work and the rest of the student's give their feedback. Students on panel will read their current work from the workshops.

SEMINAR (CBSL 248)

A Work of Heart: Four Students' Experiences as Volunteers for the Opening Mind through Arts Program

Emily Hadler, Megan Jurgens, Madelyn Turner, and Hope Snider
Sponsor: Meredith Pitt

Opening Minds through Art (OMA) is an intergenerational, failure-free art program to help build bridges across age and cognitive barriers. This program, created by Elizabeth Lokon, Ph.D. at the Scripps Gerontology Center at Miami University of Ohio, partners volunteers with a person living with dementia for weekly meetings to engage in conversation and create art. The purpose of this program is not only to break the generation and cognitive barriers, but to also provide meaningful connections and a place to be creative, make decisions, and accomplish something greater than oneself. This presentation will focus on the experiences of four students in a senior seminar gerontology class that focuses on the interactions, connections, and engagements of the students as volunteers as they work with their resident.

WHITSON (CBSL 232)

ProMedica Innovations Application System

Hunter Marleau, Katelyn Trausch, and Espyn Taylor
Sponsor: Jordan Ringenberg

ProMedica Innovations works to change healthcare technology for the better, advancing the ideas, technologies, and inventions that can improve the quality of patient care and outcomes. Our project created an application for the innovations team to identify new ideas, empower inventors, support promising companies, and promote a shared ideal of better physical and economic health within the communities we serve. Our team designed and developed an innovations submission system for ProMedica. This will be used for potential innovators to easily submit their ideas to a web frontend that communicates with a database backend that searches for potential intellectual property infringement. Once submitted, the system will email the project managers. The system will also inform the project innovators that their submission has been received by the system and notify them of status changes.

BEALL (CBSL 220)

Ethicality of Genetic Modifications in Humans and Animals

Sarah Starkey
Sponsor: Nathan Tice

For years, there has been an ongoing debate between religion and science. More specifically, there has been a continuous ethical debate over genetic modifications in developing embryos. This argument is very similar to the debate over abortion; people either believe that the embryos are human life and deserve to be protected, or they believe that in an early stage of development, the embryos are not yet considered humans and can be changed genetically. Scientists insist that genetic modifications in the womb can help prevent diseases later in life, but some religious leaders say that humans are creations of God and should not be changed for any reason. Despite the debate over the subject, many scientists and religious leaders agree there needs to be collaboration to better understand life and how it works. This presentation will discuss the ethicality of genetic modifications in humans and animals.

Poster Presentations

POSTER: 1

CoviChain: A Blockchain Enabled COVID-19 Vaccine Supply Chain

Shraddha Ghotkar

Sponsors: Samuel Yates and Jorden Ringenberg

After a long-fought battle against COVID-19, scientists have begun to develop effective vaccines. However, for the entire world to be fully vaccinated, doses equal to two times the world's population would be required, and hence the supply chain must go through a cumbersome process and network. As participants all around the world are involved, maintaining the integrity of a supply chain becomes a challenge. For this and many other issues, Blockchain Technology will be the response. Blockchain is a distributed database used to record transactions and track assets. Different features of the blockchain would address the issues faced by the supply chain, which are used to develop a software, as a part of this project. This software will also be used to strengthen traceability of the supply chain. The proposed project postulates the use of Blockchain to address most, if not all, of the issues faced by the supply chain.

POSTER: 2

Equipping Pharmacists and Student Pharmacists with Diversity, Equity, and Inclusion Tools

Olunife Akinmolayan, Josh Okyere, Michael Wei, Krishna Desai and Amen Bejoy

Sponsors: Akesha Edwards and Sandra Earle

This study will assess pharmacy personnel's (pharmacists and student pharmacists) confidence in handling diverse patients and will assess subjects that received diversity, equity, and inclusion (DEI) training, to determine if formal DEI training is essential to provide a high quality of patient care. We will be using a cross sectional survey comprising thirteen questions. Distribution will be done electronically via Google Forms. The first seven survey questions will gather respondent demographics while the latter six questions will gather data pertaining to the research question. These questions are Likert scales, yes or no, and open response types. Data analysis will cross-tabulate data between personnel. The contingency table will identify any potential patterns, trends, and probabilities between groups to evaluate the usefulness of DEI training. Results and conclusions have yet to be determined.

POSTER: 3

Inspiring Tomorrow's Coders

Jared Dixon

Sponsor: Mary Jo Geise

Annually the CSCI Choose Ohio First Scholars create a hands-on activity for the Marathon IT Explorers introducing them to an exciting aspect of computer science. Past projects have included Lego robots, 3D-printing, virtual worlds, and Python games. The scholars work as a team to choose the topic for the session and develop lesson goals. Once they have the project developed, they work through it to make sure the scope and timeframe of the event are appropriate and engaging. The project is constructed to provide different levels of challenge while also have enough scaffolding to make the outcome achievable. The goal of these sessions is to inspire high-schoolers to pursue a future IT career path. Program Summary Annually the CSCI Choose Ohio First Scholars create a hands-on activity for the Marathon IT Explorers introducing them to an exciting aspect of computer science. Past projects have included Lego robots, 3D-printing, virtual worlds, and Python games. The goal of these sessions is to inspire high-schoolers to pursue IT.

POSTER: 4

Goldenseal Plant and Multidrug Resistance

Cassandra Morefield

Sponsor: Dana Emmert

Berberine is a compound produced by some medicinal species such as the goldenseal (*Hydrastis canadensis*) plant. Berberine has been shown to reduce multidrug resistance in cancer cells by inhibiting the activity of p-glycoprotein, which is known to remove foreign compounds from cells. P-glycoprotein mediated multidrug resistance occurs when p-glycoprotein removes foreign substances in medication from cancer cells. Berberine is a known substrate of p-glycoprotein, so it is able to compete with other compounds for p-glycoprotein, allowing the medication to remain in the cell. In this research, we have generated goldenseal plant extracts from the above-ground portion, root and rhizome and will standardize the berberine concentrations between them. We will add these extracts to cultured MCF7/DX1 cells and monitor cellular fluorescence to determine which extract best reduces p-glycoprotein function. With this research, we will learn whether goldenseal plant extracts can reduce multidrug resistance, which could lead to improved treatments for cancer.

POSTER: 5

Using Black Soldier Fly Larvae for Sustainable Organic Waste Reduction and a Zero-Waste Campus

SioHeng Wu

Sponsor: Yanting Guo

Using Black Soldier Fly Larvae (BSFL) to reduce food waste and animal manure is an innovative way to solve organic waste problem sustainably. The BSFL can convert large amount of organic waste into protein-rich animal feed in a short period of time (around 20 days in optimal condition). The objectives of our research are to find the optimum moisture conditions for reducing horse, cow and sheep manure using BSFL, and to apply this bioconversion project to create a zero-waste campus at the University of Findlay. Our results find that water content in manure and ambient humidity has similar impacts on the rate of manure reduction by BSFL. Other factors such as different kinds of bedding, and growing of micro-organisms also play a role on the reduction rate by BSFL.

POSTER: 6

Verbal Encouragement's Differing Influence on Physical Tasks

Reagan Ward, Ainsley Sherman, and Riley Metzker

Sponsor: Jacob Burmeister

Verbal encouragement is used in many interpersonal contexts in which enhanced performance is desired, for example during clinical treatment and assessment. However, little is known about how encouragement during assessments may impact patient performance. The experiment performed here tested the impact of verbal encouragement on a physical task (hand grip strength test). It was hypothesized that participants' performance in the physical tasks would improve with encouragement. This experiment was a within-subject design in which participants (N = 51) were randomly assigned to either receive standard instructions first and encouraging instructions second or vice versa. The primary hypothesis was supported: grip strength was statistically significantly higher when participants were given encouragement (32.16kg) versus the standard neutral instructions (30.56). This experiment demonstrates the benefit and limits of verbal encouragement on a clinical measure commonly used in an occupational therapy setting.

POSTER: 7

Antimicrobial Properties of Essential Oils Against Laboratory and Clinical Isolates of Bacteria

Rebekah Gollihue

Sponsor: Robert Charvat

Essential oils have long been utilized to treat disease, and numerous studies have been completed on the effectiveness of various oils against bacteria. Due to increasing antibiotic resistant bacteria, people are moving away from antibiotics and back to a more natural approach to medicine, thus it is important that the purported antimicrobial claims surrounding essential oils are validated. The aim of this study was not only to test oils against laboratory strains, but to also add in two clinical isolate drug resistant strains of bacteria: *S. aureus* (strain HFH-30364) and *P. aeruginosa* (strain PGO2354). In order to see if the oils were effective, the zone of inhibition (ZOI) was measured and compared to the ZOI of an antibiotic known to inhibit the bacteria. The results indicated that cinnamon bark was one of the most effective at inhibiting bacteria.

POSTER: 8

Beta Antagonists and Their Utilization in the Treatment of Essential Tremors

Tori Leal

Sponsor: Nathan Tice

Beta blockers, or beta-adrenergic blocking agents, are medications that block the release of stress hormones. They are prescribed for angina, heart disorders, blood pressure, migraines, hyperthyroidism, and essential tremors. Essential tremors are genetic and tend to be in the hands, arms, head, voice, chin, and legs. In the article, "Enantioselective preparation of metoprolol and its major metabolites," the authors Jung S., et al., discuss the synthesis of metoprolol as a beta-selective adrenoceptor antagonist used for the treatment of angina and hypertension. Our proposed methodology involves a similar route as the one reported by Jung, employing the substitution of 2-chloromethyloxirane at the O-H site on the benzothiophenol substrate. The potential utilization of this beta antagonist and the possible impact in the treatment of essential tremors was also be further discussed.

Poster Presentations (Continued)

POSTER: 9

Pharmacists' and Pharmacy Interns' Opinions on Remote Patient Monitoring

Madeline Hutchins and Megan Juergens

Sponsor: Sandra Earle

Remote patient monitoring (RPM) uses technology to monitor patient's health outside of a conventional health-care setting. Through this practice, changes in a patient's disease, symptoms, labs, etc., can be detected in real-time, preventing or slowing disease progression, hospital readmission, and exacerbations while assisting in optimizing treatment. Pharmacists provide a unique outlook helping expand and develop more comprehensive remote patient care. This is a new role for pharmacists. Currently practicing pharmacists and pharmacy interns in the state of Ohio are surveyed regarding their familiarity, exposure, and personal opinions on RPM. An estimation of around 300 current pharmacists and interns will be surveyed. The data collected will be statistically analyzed and presented, evaluating trends and comparing the responses in differing demographic categories.

POSTER: 10

Investigating the Anticancer Activity of Novel Norethindrone Derivatives in PC3 Prostate Cancer Cells

Courtney Hollenbacher and Katelyn Harris

Sponsors: Ryan Schneider and Richard Dudley

Prostate cancer is the second most commonly diagnosed cancer in men. Though mortality has declined, prostate cancer is estimated to be the second leading cause of death from cancer in men in the US in 2022. Effectiveness of currently available drugs is limited by cancer cell resistance and metastasis. Here, we synthesized a small collection of norethindrone (NE) derivatives (Compounds A-D) using Click chemistry, a one-pot microwave-assisted reaction, and an Anton Parr Monowave-50 reactor with the goal of inducing androgen receptor blockade in prostate cancer cells. The XTT viability assay was used to assess anticancer activity of the NE derivatives in prostate cancer cells. Two compounds failed to induce an anticancer response, whereas Compounds B and C demonstrated anticancer activity. Future research involves investigating mechanism(s) by which active compounds elicit anticancer activity and to characterize additional molecular modifications to optimize the structure activity relationship of the NE scaffold.

POSTER: 11

Invasive Flowering Tree Influences Pollinator Species Diversity

Paige Chernisky, Ashlie Hicks, Reegan Kehres, Dolly Miller, Alivia Niese, Clara Orr, and Johnathon Terry

Sponsor: Benjamin Dolan

Callery pear trees were intentionally introduced to landscaped areas of North America in the early and mid 1900s, and since then, the species has escaped and is now invasive. This invasive tree has profuse flowering in spring and has the potential to influence plant-pollinator interactions by altering pollinator species abundance and community diversity. This project seeks to understand whether pollinator species found on Callery pear are like pollinators expected in Hancock County, and it will quantify the abundance of these pollinators to determine whether the overall community differs from expected county communities. Considering pilot data collected in three previous seasons, we expect there to be a less diverse pollinator population because the focus is on one specific tree, as opposed to overall plant life in the county.

POSTER: 12

Effects of Extracurriculars on College Student GPA and Mental Health

Morgan Knerr, Austin Burkhart and Hannah Henning

Sponsor: Jason Guy

Extracurriculars are commonly encouraged for college students to gain experiential education and build resumes; however, supporting literature regarding the correlation between extracurricular activities and GPA as a measure of academic performance is incomplete. This poster focuses on analyzing results of a survey given to students to depict trends between hours spent on extracurriculars each week with GPA and mental health. The results can be potentially useful for students and advisors to better balance academic and extracurricular load.

POSTER: 13

Is the Pigeon Brain Robust to Age-Related Atrophy? Revisiting Coppola and Bingman (2020)

Holden Scribner and Caillie Barnett

Sponsor: Vincent "Gino" Coppola

Previously, Coppola and Bingman (2020) reported larger forebrain volume in older (10-15 years; $M = 12.86$), compared to younger (2-3 years; $M = 2.14$), homing pigeons. The authors concluded that the pigeon brain is more robust to the effects of aging than that of mammals, who often experience age-related atrophy of the forebrain. However, their older pigeons may not have been old enough to detect age-related atrophy. The current

study thus expands upon the previous study by examining even older pigeons (18- 20 years). We plan to measure these brains following the same methodology of Coppola and Bingman (2020) – i.e., using the same digital caliper, orthogonal planes, and measurement criteria. We will then compare these measurements to measurements of a new set of younger pigeon brains (1-3 years of age), as well as the measurements from Coppola and Bingman (2020).

POSTER: 14

Review of Strategies to Address Pharmacy Technician Shortages

Andrew Scaife and Nathan Vandermeer

Sponsors: Tonya Dauterman and Debra Parker

Over the past several years, workload demands on pharmacists and their technicians have grown significantly. Due to the increased demand for services to be provided by pharmacists and the shortage of pharmacy technicians, pharmacist workloads have increased, often expanding to cover duties normally performed by technicians. A survey conducted by the NCPA found that up to 80% of independent pharmacies are experiencing difficulties hiring and retaining pharmacy technicians. Another survey was conducted by the OSBP which showed that nearly 70% of pharmacists from retail pharmacies, health systems, long-term care facilities, and mail-order pharmacies feel that their current staffing is inadequate to provide patients their prescriptions in a timely manner. Additionally, 71% of responding pharmacists believed current workload to staff ratios prevent them from providing safe and effective patient care. As seen in the OSBP's survey, this technician staffing shortage is affecting pharmacies in both outpatient retail settings as well as hospital and health systems.

POSTER: 15

Findlay, Ohio: How Age-Friendly is My Community?

Adriana Jutte

Sponsor: Meredith Pitt

Over the past decade, the United States has witnessed an increase in the number of individuals over the age of 65. This is primarily attributed to the Baby Boom population entering this age group. The focus of communities should be to ensure that its older adult population feels supported. With this being said, we need to ensure that these older adults have all the utilities they need in order to live out the rest of their beautiful lives right where they are. We, the younger population, have a greater say in our communities, so it is partially our job to make sure our communities are age friendly. There are 6 criteria to be looked at, housing, outdoor space and build environment, transportation, social environment, community support and health and wellness services. In this project, we will be looking at if Findlay, Ohio is an age friendly community.

POSTER: 16

Bloomville, Ohio: How Age Friendly is My Community?

Morgan England

Sponsor: Meredith Pitt

Today, the world population of older adults, ages sixty-five plus, is continuously increasing; with the help of medical developments, humans are having longer and healthier lives. This means it's very important for the younger population to optimize opportunities for older adults. Not only does an age friendly community benefit the older generations, but it will benefit the younger population to lay the groundwork for becoming an age friendly community as well. These types of communities allow the older population to actively engage in place as younger generations help provide housing, transportation, indoor and outdoor activities, a social environment, and health and wellness services. The World Health Organization has made a set of guidelines for the services provided that would qualify a community as age friendly. The purpose of this study is to take a deeper look into my hometown, Bloomville Ohio, and see how age friendly this small town can be.

POSTER: 17

Mansfield, Ohio: How Age-Friendly is My Community?

Teagan Allen

Sponsor: Meredith Pitt

As the medical field advances, there is an increase in the number of people living past the age of 65. To be able to support its older adult population, communities need to start addressing how they will start offering that support to their older adults who call the community home. This ability to address how well the community can support its older adult population is called age-friendliness. Age-friendly communities take into consideration the following factors: Housing, Environment, Transportation, Social Environment, Community Support, and Healthcare/Wellness Services. If a community has these factors, their aged population may find it easier to thrive. By having healthy older adults in their community, people will find that a community is only as strong as its weakest link. By making a community age-friendly, a community becomes stronger. If the elderly are strong, the whole community grows stronger. This study examines the age-friendliness of Mansfield, Ohio.

Poster Presentations (Continued)

POSTER: 18

Kenton, Ohio: How Age-Friendly is My Community?

Kylie Krohmer

Sponsor: Meredith Pitt

In the United States we are seeing an increase in the number of adults 65 years and older. This is due to the baby boomer generation aging, as well as an increase in life expectancy. It is important that communities take action to accommodate the needs of older adults, allowing them to successfully age in place. There are six categories to take into consideration when ensuring a community is age friendly, they are as follows: Housing, Outdoor Spaces and Built Environment, Transportation, Social Environment, Community Support, and Health and Wellness Services. The purpose of this study is to look at my hometown, Findlay, Ohio, to determine whether or not it fits the criteria of being age friendly. I will look at each category and determine what Findlay has to offer, and what we can improve upon.

POSTER: 19

Findlay, Ohio: How Age-Friendly is My Community?

Amanda Clymer

Sponsor: Meredith Pitt

In the United States we are seeing an increase in the number of adults 65 years and older. This is due to the baby boomer generation aging, as well as an increase in life expectancy. It is important that communities take action to accommodate the needs of older adults, allowing them to successfully age in place. There are six categories to take into consideration when ensuring a community is age friendly. The purpose of this study is to look at my hometown, Findlay, Ohio, to determine whether or not it fits the criteria of being age friendly. I will look at each category and determine what Findlay has to offer, and what we can improve upon.

POSTER: 20

Canfield, Ohio: How Age Friendly is My Community?

Megan Burkett

Sponsor: Meredith Pitt

The aging population in the United States is an ever-increasing statistic. As these numbers gradually rise, there will inevitably need to be more adjustments to ensure age-friendly communities are a priority. When looking at a particular community, there are many aspects to consider, making certain it is appropriate for the aging population. These guidelines include housing, outdoor spaces and built environment, transportation, social environment, community support, and health and wellness services. In this

study, I will be looking at my hometown of Canfield, Ohio. I will consider all these aspects in my study to look at how age-friendly my community is. The purpose of this study is to examine my hometown and make sure the aging population has an environment where they are supported and served.

POSTER: 21

Ottawa-Glandorf, Ohio: How Age-Friendly is My Community?

Kristen Siefker

Sponsor: Meredith Pitt

As modern medicine continues to extend the life expectancy of individuals and the number of older adults steadily grows, it is important that communities offer support and services to this aging population. We are all subject to aging at some point so it is important that we make changes for our current older adults as well as the future of our aging population. In hopes to allow aging individuals to age in place, we must look at the age-friendliness of our communities and strive to improve our services. When taking age-friendliness into consideration we look at six guidelines including housing, outdoor spaces and built environment, transportation, social environment, community support, and health and wellness services. The purpose of this study is to examine the age-friendliness of my own hometown, the Ottawa-Glandorf, Ohio communities.

POSTER: 22

Medina, Ohio: How Age Friendly is My Community?

Paige Horton

Sponsor: Meredith Pitt

In the future of our lives, there is an increasing distress in terms for the older generation. With having to live in a community that may or may not be accessible to everyone in the 65+ age group. Having access to an age-friendly city determines how livable it is for all ages, therefore having attainable activities, social connectivity, productive, and profitable elements around is a key aspect for people's physical health and mental health. In this study I will be focusing on Medina, Ohio and the qualities that are age-friendly and how many Medina consists of to find out if there needs to be changes in order for the older generation to thrive or if the qualities it has are enough for success.

POSTER: 23

North Canton, Ohio: How Age Friendly is My Community?

MaKenna Kemp

Sponsor: Meredith Pitt

Aging is a natural process that occurs in every area of the

world and in every community. In America, the amount of older adults is only increasing as time goes on. This is why it is imperative that the six criterion for an age-friendly community provided by the World Health Organization are met. These include transportation, housing, community support, healthcare and wellness services, outdoor spaces, and social environment. I will be using these criterion to find out if North Canton, Ohio is an accommodating place for older adults or if they miss the mark in one of these areas of need.

POSTER: 24

Coldwater, Ohio: How Age Friendly is My Community?

Conner Muhlenkamp

Sponsor: Meredith Pitt

The United States has witnessed a dramatic increase in the older adult population over the age of 65. While this population is growing, there have been discussions that revolve around the concept of older adults being able to age in place. Aging in place requires older individuals to continue living in an environment that is supportive of them throughout their aging process. Whether a community can support an older adult in that pursuit focuses the attention on whether the community is age friendly. According to the World Health Organization, there are six key components to consider when making that determination. They include housing, outdoor spaces and built environment, transportation, social environment, community support, and health and wellness services. For my study, I am going to look at these key components within my hometown of Coldwater, OH to determine the age-friendliness of my community.

POSTER: 25

Lorain, Ohio: How Age Friendly is My Community?

Natalie Vasu

Sponsor: Meredith Pitt

There is an increase in the aging population in the United States and there is a need for providing proper services to maintain proper safety standards. These resources include community support, health and wellness services, transportation, a built environment, active engagement in the community and housing. Creating an established community that supports everyone is important for forming connections. No one likes to feel isolated in the world. It is important to grow trust in the town we live in so a safe environment can be created. Age-friendly communities increase community engagement, are inclusive, establish solidarity between generations and increase the quality of life. The caring for the overall well-being, mentally and physically for the aging population is essential. The city of

Lorain, OH has great opportunities for the aging population. Through this study I am finding resources to prove that Lorain is a well-established, age-friendly community.

POSTER: 26

Marysville, Ohio: An Examination of the Age-Friendliness of My Community

Austyn Grandits

Sponsor: Meredith Pitt

As the world continues to reproduce, it also continues to age. It is important to care for all living lives, especially for our elders. When caring for our elders and the aging community, welcoming arms is extremely essential. Making friends and finding somewhere that feels like home can be very challenging but I want to share with my audience that Marysville, OH is a welcoming place for the aging community. It is also extremely important when looking for age-friendly groups to take into consideration these six things. These things include Healthcare/Wellness Services, Community Support, Social Environment, Transportation, Housing/Outdoor Environments. When looking for age-friendly groups, it is desired to make sure that the community is welcoming as well as friendly. Nobody wants to be lonely (especially during the aging process), so it is very important to take those things into consideration. This is why I believe Marysville, OH is very age-friendly for older adults throughout this entire community.

POSTER: 27

Wadsworth, Ohio: How Age Friendly is My Community?

Alyssa Sabol

Sponsor: Meredith Pitt

Becoming a part of the older population and older adult community is something that we will all face. The aging population is continually growing and can come with many challenges, one being the friendliness of our communities. With a growing population comes a growing need for services for older adults to help them age successfully. An age-friendly community consists of safe, accessible and affordable services including housing, outdoor spaces and environments, community support, transportation, health and wellness services, and active engagement in the community. By taking into consideration older adults and their needs, communities should be able to positively impact their quality of life. For my study, I will be taking a look at how my hometown, Wadsworth, Ohio considers their aging population and the age friendliness of my community.

Poster Presentations (Continued)

POSTER: 28

Predicting Video Game Success

Javian Martin

Sponsor: Aaron Blodgett

This capstone project will predict video game success with the information used to categorize a game. Such information includes platform(s), release year, genre, publisher, regional/global sales, developer, and rating. With these factors, I will develop a predictive model to foretell if a game will be successful or not before it is released. The process includes retrieving, cleaning, and analyzing a dataset of thousands of games with all these factors associated with them. Running regression models generates the predictive equations outlining which of these factors have a significant impact on the sales of a game. Once completed, the most significant factors found, a predictive model for video game sales, and informative visualizations about the gaming industry will be provided in detail. The overall goal of this project is to help game developers of any size understand what to focus on when developing their next big title.

POSTER: 29

Pharmacogenomics and its Relationship to Clinical Decision

Daulton Buetner and Nathan Bourne

Sponsor: Julie Oestreich

Our names are Nathan Bourne and Daulton Buetner, and we are fifth year pharmacy students. For our research project, we focus on the topic of pharmacogenomics. Pharmacogenomics studies how differences in gene expression can alter drug efficacy. Drug activity can be altered by enzymes, which are regulated by numerous genes. Because of the genetic diversity of populations, some people require different strengths of the same medication to achieve similar clinical effect. Our research specifically looks at the CYP3A4 gene and how its expression in humans affects their response to statins, a cholesterol medication. To study these effects, cheek swabs are collected from consenting patients in an ambulatory care setting and taken to the lab, where DNA is isolated and genotyped. Genotyping will provide us with information on CYP3A4 expression among patients. Once finished, the results can be helpful to determine gene targets for future studies and long-term clinical recommendations.

POSTER: 30

The Impact of Transition Through COVID-19 Blended Remote and In-person Learning on the Self-perceived Preparedness, Satisfaction, Confidence, and Motivation of Pharmacy Students

Lauren Bull and Racheal Hendershot

Sponsors: Jenna Mills and Celeste Voight

During the COVID-19 pandemic, pharmacy students' education shifted from in person to online learning. This study assessed the impact of online learning on pharmacy students' (1) confidence, (2) preparedness, (3) satisfaction, and (4) motivation at the University of Findlay College of Pharmacy. An electronic survey was distributed to P1-P6 pharmacy students enrolled in the University of Findlay College of Pharmacy during April 2021 to measure these objectives. Overall, students felt significantly different about their self-perceived confidence, preparedness, satisfaction, and motivation depending on their current standing in the pharmacy curriculum. Students entering their first professional year of the pharmacy program (P3) felt the least confident to succeed in a pharmacy career during the shift to online learning. These results can inform pharmacy instructors of where to allocate additional online resources and support during times of online or remote learning.

POSTER: 31

Assessing the Rate of Concurrent Hormonal Contraceptive and Antidepressant Medication Therapy in Female Patients Aged 18-26 in a College-Based Community Pharmacy

Olivia Holden, Marina Vasilieva, and Emma Pruzan

Sponsors: Laura Sjoquist and Julie Oestreich

Research to date regarding a relationship between hormonal contraceptives and antidepressants in women is inconclusive and has limited generalizability to college-aged females. This study sought to investigate the frequency of females aged 18 to 26 concurrently prescribed hormonal contraception and antidepressant medication. These types of medications are common in the college-aged female population, but it is unclear if using one medication impacts the need for the other class of medication. In addition to understanding this relationship, this study investigates the prevalence of individuals using estrogen or non-estrogen based contraceptives and antidepressants. Data for 1441 female patients aged 18 to 26 was collected retrospectively from an outpatient health facility associated with a state university from March 2018 through March 2021. Analysis is underway to better understand the incidence and potential impact of concurrent hormonal contraceptive and antidepressant therapies on presence of the other therapy.

POSTER: 32

Structured Literacy in an Authentic Setting

Caitlyn Myers, Lea Pessell, and Allison Gilbert

Sponsor: Mary Munger

As teacher candidates, our goal for this experience was to properly evaluate primary-aged students on their current literacy levels and provide targeted interventions based on data collected. We used skills obtained from EDUC 325, Structured Literacy taught by Dr. Munger. This collaboration lasted a total of seven weeks with eleven teacher candidates and thirty-three students. The primary-aged students attended Jefferson Primary School in Findlay, Ohio. Each teacher candidate was assigned three students and evaluated those students' skills using the Really Great Reading assessment (Really Great Reading, 2019). Results were compared to the Acadience Reading assessment that (Acadience Learning, 2020) primary students had previously been given. After this preassessment, custom lesson plans were tailored for each student. As a result, the teacher candidates were given the opportunity to benefit from gaining experience while learning to pinpoint and aide in repairing reading deficits. Primary students benefited by acquiring extra reading support.

POSTER: 33

Novel Chalcones: A Continuation of a Therapeutic Approach to an Aggressive Brain Cancer

Joseph Brennan, Alexis Sommer, Audrey Zbydnowski, Tylor Bunn, and Amber Schauer

Sponsor: Rahul Khupse

Glioblastoma (GBM) is the most common form of malignant brain and CNS tumors. Usually, GBMs are detected late and emerge in the brain "de novo," which means they begin as a Grade IV tumor with no evidence of a lower grade tumor. Therapeutic options for GBM are minimal. To address this problem, we worked in the lab to design, synthesize, and identify a novel chalcone. When developing new drugs for brain cancer, two main challenges involve getting the molecule to pass the blood-brain barrier (BBB) and selectivity for tumor tissue. We used synthetic chemistry methods to generate our target compounds and used analytical techniques such as Nuclear Magnetic Resonance (NMR), Mass Spectrometry (MS), and Thin-Layer Chromatography (TLC) to verify their structure and purity.

POSTER: 34

The Effects of Athletic Shoes on Vertical Ground Reaction Force During Walking, Jogging, Running, and Jumping

Cassidy Baran and Jordyn Dennis

Sponsor: Guofen Yu

Athletic activities may lead to athletic-related injuries, which often deter individuals from exercise. Previous studies have indicated that athletic-related injury risk factors include factors such as athletic footwear and activity surface. Vertical ground reaction force is a parameter implicated in injury risk. In this research, the effects of athletic shoes, with different mechanical wear, on vertical ground reaction force during walking, jogging, running, and jumping is investigated by using a force plate.

POSTER: 35

Assessment of the Levels of Cultural Competency in Pharmacy Students

Lindsay Fries, Jaspreet Kaur, Rachael Enseing, and Ketchen Ayukndang

Sponsor: Akesha Edwards

Many studies have documented that minority groups have cultural differences regarding healthcare needs and pursuit of services that can contribute to disparities. Pharmacists need to be culturally competent to provide knowledgeable and appropriate care. The Accreditation Council for Pharmacy Education (ACPE) sets education standards for all schools of pharmacy in the U.S., but there is not a gold standard for the incorporation of cultural competency training into the curriculum of pharmacy programs. The "Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals" was used to analyze five constructs. Across cohorts, there were significant differences in overall cultural competency ($p=0.045$), cultural awareness ($p=0.002$) and cultural skills ($p=0.013$). There were no significant differences in scores across demographics except for ethnicity where there were differences in the overall cultural competence levels ($p=0.05$), cultural skills ($p=0.016$) and cultural encounters ($p=0.005$).

Poster Presentations (Continued)

POSTER: 36

Rationale for Choosing Drug Information Resources

Emily Stephens

Sponsor: Jason Guy

Drug information (DI) is a crucial aspect of the profession of pharmacy and the pharmacist contribution to a multidisciplinary team. Drug information has become increasingly accessible given the number of resources available electronically. Methods: A prospective survey was developed to gather data regarding why certain DI resources are preferred among student pharmacists depending on the type of DI request. This 16-question survey serves to gauge the influence that various factors may have on DI resource selection ranging from workplace DI database use, exposure to resources in the academic setting, and components of the DI resources themselves. The results of the survey will be compared against demographic information of the participants. Results: Results are pending with an anticipated data collection completion date of 2/11/2022. Discussion: The results acquired from this study may help influence student pharmacists' DI resource selection to efficiently retrieve appropriate drug information.

POSTER: 37

The Prospects of Pharmacogenomic Research

Abdulraheem Al-Nimer

Sponsors: Jason Guy and Julie Oestreich

Pharmacogenomics is a relatively new field in pharmacy which seeks to identify the best treatment regimen through analysis of the patient's genome. Patients' response to treatment can vary based on their genome, medication, enzymes involved, and type of treatment. Methods including isolation of DNA (via buccal swabs) and amplification of the genetic markers of interest using Real Time PCR can be helpful to produce clinically actionable data. This approach can allow the provider to determine if medication is appropriate for a given patient. Such determination can aid in determining optimal medication therapy. Currently, this approach is inconsistently used due to its expense and the time-consuming nature. However, as the expense and duration of such technology is lessened, and paired with other future technological advances, it is likely that this approach may become more popular for diagnosis and treatment. This poster investigates future possibilities for such technologies as well as the type of patients that may benefit from such approach.

POSTER: 38

Student Pharmacist Perspectives During the COVID-19 Pandemic After Taking a Psychiatric Pharmacy Course

Cassandra Kruse

Sponsors: Nira Kadakia and Laura Sjoquist

Previous research has indicated that student pharmacists struggled with mental health, resiliency, and overall well-being before the coronavirus disease (COVID-19) pandemic, and those struggles continue during the ongoing health crisis. For college administrators and educators to support students throughout their educational journeys, they must understand the perspectives of student pharmacists and their personal growth and wellbeing. Self-reflections can be used to analyze these perspectives in a qualitative manner. This study utilized written end-of-course reflections completed by third professional year student pharmacists enrolled in University of Findlay's PHAR560 (Pathophysiology, Pharmacology, and Therapeutics of Neurologic and Psychiatric Disorders) during Fall 2020. Thematic analysis of 30 reflections is currently underway with consensus among all researchers. The themes will be used to explore student development and inform both curriculum enhancement and student support structures.

POSTER: 39

Trends in Vitamin and Supplement Use During the COVID-19 Pandemic

Danielle Schieber, Lindsey Dahlquist, and Alyssa Pearce

Sponsor: Laura Perry

Throughout the COVID-19 pandemic, vitamins and supplements have gained popularity and have been sought after by the general population for the protection and treatment against the SARS-COV-2 virus. These include but are not limited to zinc, multivitamins, vitamins C and D, and vitamin B. There is insufficient data to recommend for or against supplementation of vitamins and supplements in the prevention or treatment of COVID-19. While previous studies have reported trends in supplement use during the pandemic, potential influences and reasons for supplement use are lacking. An anonymous survey was administered at a community pharmacy in mid-Ohio to individuals 18 years and older. The aims of this study were to evaluate 1) trends in vitamin and supplement use prior to and during the pandemic, 2) influencing factors that may have contributed to use and 3) reason for use.

POSTER: 40

Confirming Geometric Cue Use in Whip Spiders: A Follow-Up Study

Cecilia Robeson, Hannah Caram, and Sophie Beeler

Sponsor: Vincent "Gino" Coppola

At the 2021 Symposium for Scholarship and Creativity we reported data investigating the visuospatial cue hierarchy during spatial learning in *Amblypygi* (whip spiders). We concluded that whip spiders preferentially used geometric (shape of enclosure) to feature (colored card) information to guide goal-directed navigation. However, the possibility that animals used self-derived olfactory cues could not be ruled out. Therefore, we plan to conduct a follow up study this semester in which animals will be trained to discriminate goal locations (two open shelters) from two alternative locations (two closed shelters), defined by their position relative to the shape of the walls of a rectangular arena. Importantly, the arena and shelters will be cleaned in between trials so to eliminate potential scent trails. It is our hope that this study will confirm our previous conclusion that whip spiders can use geometric information to guide goal-directed navigation.

POSTER: 41

Impact of College on Mental Health in Students at the University of Findlay

Sarah Thompson, Alyssa Maier, and Kallee Gersin

Sponsor: Sandra Earle

This study analyzed the relationship between college attendance and changes in mental health status in students at the University of Findlay. Changes in mental health are a concern amongst college students, and this study explores groups that may be at risk. The data obtained was used to determine if differences existed between what degree students were seeking and how their mental health has changed over the course of their time enrolled in the University of Findlay. Surveys were distributed to University of Findlay students to assess their use of anti-anxiety and antidepressant medications. In addition, students were asked how their medication use has changed since attending college and what factors may have influenced their response. A total of 193 surveys were collected. The data was analyzed using chi-square statistical tests. Results will be shared at the session.

POSTER: 43

Monte Carlo Simulation to Determine Optimal Ceftolozane/Tazobactam Dosing in Critically Ill Patients Receiving Prolonged Intermittent Renal Replacement Therapy

Madison Milby

Sponsor: Susan Lewis

Ceftolozane/tazobactam is a promising cephalosporin/ β -lactamase inhibitor combination agent with potent activity against multi-drug resistant gram-negative bacteria including *Pseudomonas aeruginosa*. There is limited data available regarding dosing of ceftolozane/tazobactam in the critically ill population receiving prolonged intermittent renal replacement therapy (PIRRT) where its use is becoming increasingly popular. Using published pharmacokinetic data in the critically ill, six conventional dosing regimens were simulated in various PIRRT settings to determine the optimal regimens for this population. The pharmacodynamic target for ceftolozane was 40% free serum concentrations above the minimum inhibitory concentration (fT>MIC) and the tazobactam target was 20% fT> minimum effective concentration of 1 mg/L with a probability of target attainment greater than or equal to 90% during the first 48 hours of PIRRT therapy. The predicted optimal dosing regimen was a loading dose of 750mg, followed by 150mg every 8 hours. Clinical validation is warranted to confirm these findings.

POSTER: 44

Impact of Changes in Total Dissolved Solids (TDS) on Macroinvertebrate Communities in the Blanchard River Watershed

Megan Wilkinson

Sponsors: Lauren Sandhu and Ben Dolan

Water quality is an ever-present environmental area of concern, especially within the watersheds that empty into Lake Erie. The presence or absence of specific species of macroinvertebrates can be used to provide insight into the degree of water quality in streams and rivers. Factors such as temperature, pH, nutrient levels, sediment levels, and pollutants can influence the macroinvertebrate communities that are present in certain areas of a watershed. An initial study questioned the particular effect that TDS (total dissolved solids) had on the macroinvertebrate community in the Blanchard River Watershed. Higher TDS typically indicates poorer water quality and should correspond to a drop in macroinvertebrate species richness. However, preliminary analysis provided contradictory results, showing an increase in macroinvertebrate species richness with an increase in TDS. These results warranted further analysis to determine why increased macroinvertebrate species richness would result from an increase in TDS.

Poster Presentations (Continued)

POSTER: 45

Patient Perceptions and Confidence in Self Care

Mackenzie Deitsch, Emma Pruzan, and Bailee Wood
Sponsors: Jenna Mills and Laura Perry

When it comes to self-medication, there are more than 300,000 over-the-counter (OTC) medications that are approved by the U.S. Food and Drug Administration (FDA). This overwhelming number makes it difficult for individuals to find the medication that best fits their needs. Pharmacists receive formalized training to assist patients with self-medication, including education related to potential interactions and side effects of OTC drugs. This study evaluated individuals' (1) self-perceived confidence of their OTC drug knowledge, (2) understanding of the pharmacist's role in self-treatment, (3) willingness to seek help from a pharmacist, and (4) barriers to approaching a pharmacist. A survey was administered to 94 individuals at three locations in Findlay, Ohio. Findings and interpretation will be shared on a poster presentation.

POSTER: 46

Analyzing the Effects of Animals and Extracurriculars on At-Risk Foster Youth in Regard to Attachment Theory

Kelsey Norton-Nunez
Sponsor: Robin Walters-Powell

When analyzing the effects of attachment theory on children in foster care, there is very little research done to examine the different ways to combat those negative outcomes. This research study will be exploring the differences between a foster home that incorporates animals and extracurricular activities versus a foster home that lacks those themes. The hypothesis for this research is that animals and extracurriculars will help foster children overcome the consequences of poor attachment. The sample size will be 25 participants, and the data will be gathered from secondary-data as well as primary through the use of anonymous surveys. The predication is that there will be positive results (overcoming the attachment obstacles) for the foster children who have families that incorporate animals and extracurricular activities.

POSTER: 47

Does Education and Increasing Awareness Regarding Substance Abuse and Addiction in the Healthcare Professional Have an Impact on Deterring Future Addiction and Abuse?

Allie Shutt, Lakin Smith, and Morgan Contreras
Sponsors: Debra Parker and Chris Hart

Approximately one in ten pharmacy professionals will suffer from a substance use disorder at some point during their lifetime. We have designed and administered a survey to assess whether education and increasing awareness regarding substance abuse and addiction in the healthcare professional is perceived to have an impact on deterring future addiction and abuse. Education could include awareness of symptoms in ourselves or others. Results will be evaluated to inform curricular inclusion of these topics in the future.

POSTER: 48

Comparing Side Effects and Adverse Reactions of Covid-19 Vaccines

Allison Berryman and James Burcham
Sponsor: Charles Mosler

With the recent COVID-19 pandemic, pharmaceutical companies have been rushing to produce vaccines that serve to prevent further spreading of the illness, prevent hospitalization, and prevent death. Some individuals are hesitant in wanting to receive a vaccine due to the documented and publicized adverse reactions to the vaccines. The purpose of conducting this study is to identify any significant differences in the adverse events following administration of the currently available COVID-19 vaccines in the United States. Three hundred and eighty-two people participated in this project. Based on our findings for first dose reactions, Pfizer reported 56%, Moderna reported 68%, and Johnson and Johnson reported 85%. For second dose reactions, Pfizer reported 65% and Moderna reported 76%. These numbers reflect the number of reported adverse events, not severity. Additional analyses are being conducted to determine which side effects were most common along with other relevant data relating to these numerical findings.

POSTER: 49

The Effect of Mindfulness on Depression in Nursing Home Residents

Hannah Jordan

Sponsor: Robin Walters-Powell

Depression is common in nursing home residents due to situations like high age, disability, and dependency on others. Due to this, there have been many researchers that have looked at potential solutions and responses to this issue. Examples of this are educating staff on signs of depression and looking at the spirituality of residents, and how that can affect their level of depression. Many types of spirituality have been studied in relation to this issue, like resident's attachment to God, practicing self-transcendence, and religious psychotherapy. However, there isn't much research on spirituality in the form of mindfulness. This research is going to explore depression levels before and after mindfulness sessions, focusing on the five senses to see the effects it has on residents' depression in a nursing home.

POSTER: 50

Quality of Life in Nursing Homes

Taylor Stair

Sponsor: Robin Walters-Powell

Quality of life for residents living in nursing homes is important for their well-being. The purpose of this study aims to explore what indicators promote a good quality of life for residents in nursing homes. The researcher will use qualitative methods in the form of an interview to collect data from the participants. The researcher will analyze the data by looking for themes from the participants answers. The participants will be elderly residents at Manor at Greendale. The researcher predicts that family interactions, meaningful activities, socialization with other residents and staff, and nutritional food are important indicators for quality of life for residents in nursing homes.

POSTER: 51

Person-in-Environment Perspective on Military-to-Civilian Transition and Education

Caitlin Bidlack

Sponsor: Robin Walters-Powell

Societal and cultural disparities between military and civilian life provide issues with effective reintegration. One such barrier to care of veterans and service members is a lack specialized, comprehensive care to the individualized needs of system reintegration and interactions. This study hypothesizes the utilization of the person-in-environment perspective of social workers aid in the transition of militants to civilian life. The sample will consist of veterans using educational benefits provided from service at The University of Findlay. Methodology will consist of the analysis and compilation of secondary quantitative data from the university and similar-sized surrounding colleges and narrative interviews of the university's consented participants. The comparative analysis and mixed-methods approach are used to yield results in favor of the individualized care of the person-in-environment perspective as it applies to the utilization of obtained military benefits in secondary education, as well as provide linear implications to successful reintegration to the broader society.

POSTER: 52

How Substance Abuse Disorders Affect Both Genders

Allaina Zehender

Sponsor: Robin Walters-Powell

While substance abuse disorders continue to increase there is little focus on the way an individuals past can influence their addiction. Studying different genders dealing with substance abuse can be a good learning outcome for anyone who knows or is working with the population of people dealing with addiction. Addiction has been shown to impact people in different ways, such as gender differences, mental health conditions, and treatment. Substance abuse was shown to be consistent in these topics of exploring addiction in different genders. This research is meant to explore the causes of addiction in all people based on the individual's gender, health condition that may have led to their addiction, and the treatment process.

Poster Presentations (Continued)

POSTER: 53

Mistreatment in Healthcare Settings of Minority Individuals

Jaulyn Renollet

Sponsor: Robin Walters-Powell

This research study will be looking at how a minority is treated in clinical healthcare settings. The hypothesis is that treatment in these settings are less than adequate for individuals coming from any sort of minority background. This study will focus more on individuals with a mental health diagnosis, while having a small emphasis on ethnic and racial backgrounds as well. All participants will be members of NAMI Mental Health Clinic in Findlay, Ohio. This study will be done by using in-person interviews. The prediction is that participants will have experienced some sort of inequity or issue in a healthcare setting.

POSTER: 54

Stress Resiliency in Families

Annika Wilson

Sponsor: Robin Walters-Powell

Stress in families is an intricate experience that affects both the child and the family system which includes parents. Research in stress resiliency is crucial to promote healthy children and families. There is a problem in that parents and families often face increased amounts of stress when there are children involved and may not have adequate coping mechanisms. Because parents and their children are interconnected, and their behaviors elicit an impactful relationship on each other. Healthy families should be the goal for both the benefit of the parents and the children. This study seeks to address the need for stress resiliency skills by reviewing the current stress capacities of parents with children.

POSTER: 55

Germicidal Ultraviolet Irradiation (UVC) and the Potential Inactivation of Bacterial and Mold Colonies

Evan Pitt

Sponsors: Kim Lichtveld and Seth Ebersviller

Germicidal ultraviolet irradiation, commonly referred to as UVC, is a short-wavelength (200 to 300 nanometers) spectrum of light. By its nature, it is able to kill or inactivate certain microorganisms by disrupting their genetic code, prohibiting them from performing vital cellular functions. With these conditions in mind, research has been conducted that tested a manufacturer's UVC emitter to determine if it is able to kill or inactivate bacterial and mold colonies. A method assessed includes utilizing petri dishes equipped with agar designed to detect colonies of microorganisms and using the UVC emitter at various distances to test this hypothesis.

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Knerr, Morgan	CPHM	Poster Number:	12				
Krohmer, Kylie	COHP	Poster Number:	18				
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