



Madonna University Center for Research Presents

# **Symposium for Research, Scholarship and Creativity**

**Wednesday, April 19, 2023 • 12–5 p.m.**

# DIRECTOR'S WELCOME MESSAGE

## 9th Annual Symposium for Research, Scholarship and Creativity



*The Madonna University Annual Symposium for Research, Scholarship and Creativity this year is in a hybrid format. The Symposium provides students and faculty with the opportunity to showcase their scholarly accomplishments in research, practice, performance and creativity with the Madonna University community. Our Blackboard platform contains poster presentations, musical performances, posters with oral presentations, and a variety of scholarly presentations. The annual Symposium for Research, Scholarship and Creativity is a key event of the Center for Research. It is designed to promote*

*scholarship, quality research practices, and creative endeavors. Through this event, we continue to provide students with an opportunity to hone their presentation skills, share innovative ideas, showcase capstone research, project work, artistic expression, creative performances and many other forms of scholarship. Additionally, Madonna Talks, provide a fast-paced update on faculty and student research and scholarship. Grounded by our values, Madonna University promotes scholarly inquiry and creativity not only for advancing one's own knowledge, skills, and understanding but also, and more importantly, for the critical contribution of expanding our capacity to serve others and contribute to the greater good. Thank you for your continued engagement, participation, and interest in the Symposium for Research, Scholarship and Creativity.*

A handwritten signature in black ink that reads "Elizabeth A. Prough". The signature is fluid and cursive.

*Elizabeth A. Prough, Ph.D.  
Interim Dean, Graduate School and Director, Center for Research  
Professor Political Science*

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# MADONNA TALKS



## **Andrew Domzalski, Ph.D.**

Professor and Chair, Department of Humanities

Director, Animal Studies & Center for Humane Studies

Co-Director, Center for Catholic Studies and Interfaith Dialogue

College of Arts and Sciences

## **Animal Souls in Christian Teachings**

The presentation centers on two theological questions: (1) do animals have souls? And if so, (2) are they immortal? The author attempts to address the above questions within the context of a broad spectrum of Christian teachings spanning from those of early Christian Fathers to modern Catholic and Protestant theologians. The biblical references to the subject both in the Old and New Testaments are analyzed, with an emphasis on Hebrew and Greek terms for soul and their English translations. The discussion of Christian teachings starts with the views of early Church Fathers, St. Irenaeus, St. Athanasius, and St. Augustine, followed by the medieval and early modern writings of St. Thomas Aquinas and St. John of the Cross, respectively. Contemporary Catholic views are represented by Pope Francis and Christopher Steck. The analysis of Protestant teachings on animal souls include the statements of such prominent early theologians as John Calvin, whose doctrines are reflected in the beliefs adhered to by Presbyterian, Reformed, and Congregational churches, and John Wesley, the founder of the Methodist church, as well as those of the twentieth-century Paul Tillich, among others. The conclusion drawn from the above multi-faceted analysis aims at explaining the current mainstream Christian beliefs about animal souls and their eternal existence by taking into account socio-historical factors formative for Christian thought.



## **Michele A. Harmala, Ph.D.**

Associate Professor

College of Education and Human Development

## **The complexity of change in schools through the lens of a “tree of implementation” framework and the Kubler-Ross change curve model**

There is an adage, “80% of all initiatives fail.” The truth is, change in organizations is hard – it often does fail. But, understanding that change is an iterative process, and managing the change process through collective learning, participation, and intentional planning increases the chances that the change will become a part of the organization. A framework provides a lens with which to critically assess the fidelity of instructional initiatives (Tabak et al. 2018, Perez et al. 2016, Carroll C et al. 2007). A “tree of implementation” framework (Harmala and Laham, 2010), was developed based on the stages of implementation (Fixsen et al. 2005) and combined with the five stages of the Kubler-Ross change curve model to support the implementation of initiatives by schools. A pilot study using a combination of the “tree of implementation” and the change curve model was conducted at 1 elementary school and 1 school district. The two educational organizations received a full day’s training using the “tree of implementation” and the change curve model to develop 1) an understanding of the complexity of change, and 2) an awareness of their initiatives within the phases of implementation. Over a period of two years, they utilized the “tree of implementation” and the change curve model to identify and assess all instructional initiatives. The findings from the pilot resulted in one school identifying more than 70 instructional initiatives at various stages of implementation and learning ways to prioritize initiatives. The district identified that it failed to support change throughout the phases of implementation and made changes to the ways they supported those initiatives. Additional empirical research is warranted to verify the generalizability of the use of the “tree of implementation” and the change curve model framework to support implementation fidelity.



**LaToi S. Smith, Ph.D., LMSW**  
Assistant Professor, Social Work  
College of Education and Human  
Development

## The Forgotten Relationship: A Phenomenological Study

The dynamics of father-daughter relationships may have a lasting effect on daughters. This relationship experiences a variety of changes when fathers were not present in the home. Daughters, who grew up with nonresidential fathers, may exhibit some symptoms of children with divorced parents. Daughters may manifest low self-esteem, have problems sustaining relationships, facing academic problems, and dealing with father hunger. There is a gap in the literature when dealing with African American fathers and the relationships they have had with their daughters. Some available research deals with incest within the father-daughter relationship. The purpose of this phenomenological study was to explore African American daughters' perceptions of how their fathers' absences have affected their life experiences. Twenty-two participants gave a detailed and in-depth account of the relationships with their nonresidential fathers. The semi-structured interviews produced data that were coded and analyzed. As a result of their experiences, six themes emerged from the data: (1) abandonment/rejection, (2) validation/approval, (3) independence, (4) strained relationships, (5) self-esteem/identity, and (6) communication. Each of these themes provided information on the effects of the lives of African American women, when raised in a home with a nonresidential father, and on their adult relationships. In their experiences with a nonresidential father, the African American daughter felt the need to protect their fathers, regardless of their relationships.



**Laura Van Horn, DNP, RN**  
Director, Nursing Simulation Lab  
College of Nursing and Health

## Student and Faculty Perceptions of Utilizing Wearable Technology for Health Assessment Skill Acquisition

This mixed-methods study examined the perceptions of prelicensure BSN students and faculty in a health assessment course on the utilization of wearable recording technology on skill acquisition and reflective practices. Nineteen students and five faculty members completed the study. Students and faculty both perceived the technology as useful and supported the recording technology's use as an acceptable alternative to in person validations. In the future, this could be reproduced with larger groups in addition to examining more specific factors that contribute to reflective practice development.



# PERFORMANCE PRESENTATIONS

## **“A Revived Ode to Keats”**

Jude Galindo, Bachelor of Arts - English

Advisor: Ioana Fracassi

Poetry Reading based on research project: The Muse’s Son – The Importance of Classical Antiquity in the British Romantic Period through John Keats. Poetry has been around for millennia. In Ancient Greece, for instance, poetry ignited new ideas, stirred people to discussion, and inspired creative expression. John Keats, a young British poet from the Romantic period, made subtle connections between classic thought/verse and his own time, and infused it masterfully in his own poetry. By examining his poem Ode to Psyche, along with his three epic poems Endymion, Lamia, and Hyperion, we can see how they’re inspired by classical antiquity, and how Keats uniquely molded them for the 18th century. We can also understand how his poems are connecting readers across borders and time, while also keeping alive the poetry of way-back-then. Keats’ accomplishment is not only relevant to contemporary expression, in all of its forms, but is also necessary for nurturing the artistic sensibility of the future.

## **Living Dance, Dance Living**

Haley Harting, Double Major: Bachelor of Fine Arts - Dance Performance and Bachelor of Science – Sports Management

Advisor: Susan Panek



Dancers: Alexis Brown,  
Ellen Houseman,  
and Emma Schulz

Choreography by Haley Harting

Living Dance, Dance Living is an original choreographic work that debuted in December 2022. The impetus and/or intent of the composition is to convey the idea that life should be approached without fear, and that if we are brave enough to take control of our experiences, we can overcome any of our challenges and ultimately, influence the future.

# POSTER PRESENTATIONS

## Undergraduate

### **Poster Number: 1**

#### **Nursing Shortage and its Effects on Medication Errors**

**Nadia Aljahmi, Joud Alameh, Jason Choi, and Brooke Cranston**

**Advisor: Dr. Kathleen Rittenhouse**

A higher than 1:4 nurse-to-patient ratio is linked to a 7% increase in in-hospital mortality with each additional patient. Lack of adequate staffing in healthcare facilities might endanger the lives and safety of patients.

Longer hours, more patients, and increased workloads for nurses can lead to exhaustion and burnout, which can impair their ability to concentrate on their profession. Medical blunders, a lack of involvement, and neglected patient or nursing care can all result from lack of attention. According to the study "Medication errors of nurses in the emergency department," medication errors are a major problem for emergency room nursing and are quite likely to occur among nurses. Given that the rate of reporting medication errors among nurses was far lower than the rate of medication errors they had actually made, it is obvious that there is a disparity between the two. They recommended increasing the number of nurses employed, reducing the quantity of work emergency room nurses must perform, and enrolling again in courses meant to increase nurses' familiarity with pharmacology and adjust the educational process.

### **Poster Number: 2**

#### **Do Ineffective Coping Styles and Poor Work Environments Result in Higher Stress Levels and Burnout?**

**Nesrine Bazzi, Naura Boomrod, Kristin Johnson, Courtney Kaltz, and Nicole**

**Advisor: Gregory Patterson**

The purpose of this study is to collect information and research regarding the impact of the pandemic on healthcare staff, identify unhealthy coping mechanisms and behaviors, and provide tools to regain and maintain a healthy state capable of providing quality care for patients and families.

### **Poster Number: 3**

#### **Nurses Perceptions of Factors Affecting Workplace Violence**

**Molly Chantres, Sarah Gendron, and Audrey Pickett**

**Advisor: Dr. Adlah Hamlan**

Background: The Bureau of Labor Statistics states that healthcare workers are four times more likely to experience assault than any other professionals.

Purpose: To identify the nurses' perception of the factors contributing to increasing violence and the strategies to decrease it. Methodology: Descriptive cross-sectional designs were used by recruiting 26 nurses who are working in St. Mary hospital. The data was collected by using questionnaire that includes 10 questions. The questions identify the nurses' experience of work violence, sources, types, reporting and the strategies to reduce workplace violence. Nurses perceived increasing prevalence of workplace violence and there are different strategies should be adopted to solve this issue.

### **Poster Number: 4**

#### **Rare Earth Elements: The Hardware of Technology**

**Antonio DeFelice**

**Advisor: David Piasecki**

Every bit of technology is expected to benefit humanity, but what does it take to make these technologies? Rare Earth Elements are the heart and soul of technology. They are the materials that allow humans to create modern technologies ranging from windfarms, permanent magnets, phones, televisions, electric cars, and even critical defense systems for the military.

For materials that are used so much both in an average citizens life and in the key points of a military defense, everyone should know what they are and where they come from. These rare earth elements take a lot to mine and ship to the companies that turn these dirt mixes into usable elements. These elements also are not too common in the United States so they must be imported for US Companies to use in their products. With the overall demand for these materials going up and these elements not being able to be easily recycled or reused

there needs to be ways that companies and countries can reduce the use of the materials, or they will ruin the earth's land and economy.

**Poster Number: 5**  
**MC1R Gene and Pain Management**  
**Alexander Farkas, Joshua Costelnock,**  
**Michele Mordhorst, and Karis Poszywak**  
**Advisor: Dr. Kathleen Rittenhouse**

Research has shown that people with red hair perceive pain differently than those without red hair and the genetic mutation that causes the red hair may be why. People with red hair, or the melanocortin-1 receptor (MC1R) gene, may be more sensitive to certain types of pain and require increased doses of some analgesic medications (NIH, 2021). In addition, it was also found in two separate studies that people with the MC1R variant required more anesthesia to keep them sedated in comparison to those without it and that those with the MC1R gene require higher levels of anesthetics to numb the pain of dental procedures (UCLA Health, 2022). In this review, our research focuses on individuals with the MC1R gene, if there is a difference in sensitivity to analgesics compared to those without the MC1R gene in managing pain.

**Poster Number: 6**  
**Healthcare Communication Barriers with Mask Wearing**  
**Madison Gietzen, Jessica Godfrey, Sadie Supina, and Madison Watts**  
**Advisor: Gregory Patterson**

Communication is an important aspect of patient-care because it helps to improve the nurse-patient relationship and has an overall effect on the way patients perceive healthcare and treatment outcomes. Since the COVID-19 pandemic, masks have been required in healthcare settings, making communication more challenging between healthcare professionals and patients. Masks can affect communication by limiting nonverbal communication and increasing miscommunications. Understanding how wearing masks affects communication in healthcare settings can assist in developing ways to prevent these potential issues from occurring and improve communication despite having to wear masks.

**Poster Number: 7**  
**Patient Ratios and Nurse Wellness**  
**Miranda Hild, Hiba Hamoud, and Ghada Itani**  
**Advisor: Gregory Patterson**

The goal of this project was to determine if nurse-to-patient ratios have a negative effect on nurse wellness, specifically if they elicit symptoms of nurse burnout. For this project a literature review was completed utilizing five nursing articles and a survey was conducted using voluntary participants from Beaumont Farmington Hills Hospital. It was discovered that of the participants surveyed 87.5% felt as though their assignment was appropriate only sometimes. The results showed that the nurses on this unit were displaying symptoms of nursing burnout, such as emotional exhaustion (87.5%), fatigue (93.75%), and occasional thoughts of quitting their job (56.25%). The majority of the nurses reported feeling comfortable in their environment (62.5%) and feelings of frustration for the majority of participants were only felt sometimes (43.75%). From the results, we have found a correlation between the participant's responses to high nurse-to-patient ratios and manifestations of nursing burnout occurring more frequently. Our research has shown that high nurse-to-patient ratios produce an increased occurrence of nursing burnout manifestations.

**Poster Number: 8**  
**Medical Supply Management Digitalization**  
**Deanna Novotny, Sajeda Berro, and Isabelle Mason**  
**Advisor: Dr. Kathleen Rittenhouse**

The issue of supply shortages in hospitals has become a major concern in recent times. This is particularly relevant due to the COVID-19 pandemic, which has placed an unprecedented demand for medical supplies and equipment. To address this problem, we are using the Qualtrics website to collect and analyze data through an 8-question survey. The survey aims to determine if a problem exists and if change is warranted. In addition, it seeks to investigate how supply shortages affect patient care, how the current system works, desire for change, importance, and potential barriers to change. Ultimately, this research aims to improve patient care by ensuring that hospitals have access to the medical supplies and equipment they need. Our research question states "Would barcoding systems or advanced supply systems be more efficient in communicating supply needs for hospitals to give patients first line equipment than most of the current systems in place".



**Poster Number: 9**

## **What is the Effect of Cloth Masks in Comparison to Surgical and N95 Masks on the Prevention of COVID-19?**

**Samantha Winder, Courtney Le, and Kelly Wujkowski**

**Advisor: Dr. Kathleen Rittenhouse**

In order to evaluate the effectiveness of different types of masks, we collected data from individuals who have tested positive for Covid-19 and reported the type of mask they used while in contact with patients. Participants voluntarily filled out an anonymous questionnaire that included questions about the healthcare setting they work in, the type of mask that they were required to wear while in contact with patients, if they were required to wear the same mask multiple times, and if they have tested positive for Covid-19 at any time. The study was presented through social media and word of mouth. Participants were selected based on if they work in a healthcare setting and their willingness to participate in the study. The aim of this project is to find alternative PPE that provides proper protection during times of crisis, such as during the Covid-19 pandemic.

## **Graduate**

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**Poster Number: 10**

## **Correlation of Knowledge, Attitude, and Practice Toward Probiotics Among Health Professionals in MI**

**Zina Alqawasmi**

**Advisor: Dr. Karen Schmitz**

Probiotics are living microbes that confer health benefits. 1. The human gut contains numerous amounts of microbes. 2. A healthy gut microbiome is a good indicator of a healthy body. 3. Probiotics have been used for their curative role in gastrointestinal (GI) and non-GI medical conditions. This study "Correlation of Knowledge, Attitude, and Practice Toward Probiotics Among Health Professionals in MI" aimed to evaluate the knowledge of probiotics among health professionals and its correlation to their practices and attitudes.

A total of 101 health professionals responded to the survey (79; 78.21% female). Among respondents, 67.32% claimed that they had used probiotics previously for different reasons ( $\chi^2=51.2762$ ;  $p<.00001$ ); (46.53%) to improve digestion, (26.73%) reduce bloating, (20.79%) for preventive purposes during antibiotic treatment, (18.81%) to enhance the immune system, (4.95%) for other reasons such as allergic conditions, dermatological problems, or stress.

Only 28.7% of specialists advise their patients to consume probiotics. About 88% of the participants would like to enhance their knowledge about probiotics. Further scientific evidence about probiotics and their health benefits is required to improve the level of knowledge among health professionals and to approve their use in clinical practice.

**Poster Number: 11**

## **Distance Learning: An Evaluation of the Madonna University Haiti Program**

**Yvon Baptiste**

**Advisor: Dr. Jacob Frimenko**

After the 2010 Haiti earthquake, Madonna University launched a distance learning program to bring hope to Haitians one-on-one, providing not just food or medical supplies but an education that the storm cannot erase. The purpose of the study, "Distance Learning, An Evaluation of the Madonna University Haiti Program," was to evaluate the Madonna University Haiti HELP program by surveying and interviewing students and alumni, measuring program performance, and calculating student retention rates as of 2011. The sample includes

data from 115 online survey participants and 15 respondents who attended or graduated from 2011 to 2022.

Interview results:

The success rate was 62% based on the data gathered from the Madonna Student Affairs department and the 15 participants. This commendable outcome can be attributed to six key factors that were identified.

Time and Preparation: Students devoted an average of 5h 26 per class weekly.

Technology Effectiveness: 60% prefer e-learning.

Key Skills: 100% felt they are trained to be successful as professionals.

Promotions: 87% were promoted because of attending Madonna.

Salary increase: The average salary increase is 167%, and the highest increase is 600%.

Teaching Skills: 86% of respondents said the professors are highly skilled and Tec savvy. They provide feedback within 24 hours.

### **Poster Number: 12** **Assessing the Beliefs and Knowledge of Carbohydrates from Collegiate Female Soccer Players**

**Alyssa Benvenuti**

**Advisor: Dr. Karen Schmitz**

Proper intake of complex carbohydrates before a soccer game has been found to enhance endurance, agility, and overall performance. The study consists of 28 collegiate female soccer players that were provided with a pretest, a nutrition education session on carbohydrates, and a post test. The pretest allowed the participants to answer questions regarding beliefs on carbohydrates and allowed the researcher to assess knowledge. The pre and posttest consisted of 15 of the same questions but in different context, that were used as a reference point to learn if participants had prior knowledge and beliefs about carbohydrates.

A nutrition education session on the importance of pre-performance carbohydrate intake was given to the participants after the pretest. The study was voluntary, and participants were allowed to change their minds and discontinue participating at any moment.

The participants were female soccer players at Madonna University between the ages of 18-28 years. From the 28 participants, 19 participants increased their scores on the posttest, 5 participants did worse on the posttest, and 4 people scored the same on both

tests. The data indicates that 68% of respondents have gained knowledge on carbohydrates after a nutrition education session was performed. The T static of the study was 1.71. Bagged lunches were also packed for the participants before soccer games. The bagged lunches were packed with 180 grams of carbohydrates. The amount of food consumed before athletic performance and fatigue levels after performance were assessed and analyzed. The data indicates that all the participants who consumed all or most of the bagged lunches, were still fatigued after performing in a game.

### **Poster Number: 13** **Dieselgate Scandal – Development of Customer Perception**

**Ronald Broekman**

**Advisor: Dr. Jacob Frimenko**

Unethical behavior in the automotive industry can be found at the most trusted brands. When this behavior is uncovered and corrections are being made it feels like a breach of trust to affected employees, connected industries, regulators, and consumers.

Regulators need to review, enforce, and propose improvements. Consumers appear to be more forgiving than their governments and regulators.

Companies in general need to look at all business aspects and ensure that they are compliant to both ethical and moral codes of conduct. Leadership styles play a major role in this and causes can often be traced back to leadership deficiencies or arrogance.

Corporate Social Responsibility and Code of Conduct need to be lived in organizations instead of being check-the-boxes on a superficial corporate image list.

### **Poster Number: 14** **A Comparison of Mental Health Affects of Men and Women Student-Athletes**

**Jayla Brown**

**Advisor: Dr. Jacob Frimenko**

A comparison of mental health affects men and women student-athletes. This study examines the mental wellness of men and women student-athletes.

Mental wellness has become a significant concern among athletes, as they face unique stressors related to their sports and academic demands.

Student-athletes are more susceptible to mental health issues than other non-student athlete. Student-athletes are required to balance intense training schedules, academic expectations, and social pressures, which can put them at a greater risk for mental health issues.

The problem seems to relate to student-athletes not having the proper resources or information about this topic. Therefore, they are not able to receive a diagnosis, nor properly treat the issue. The research was done using a survey from the Oxford Happiness Questionnaire, which comprises a list of over 29 different items to measure mental wellness. This study was conducted by asking student-athletes to take an anonymous survey and to read the questions carefully. Student-athletes were recruited at the sports practice facilities. This was convenient because most athletes were present in the building periodically throughout the day. A consultation with the local Counseling and Disability Resources CDCR office yielded helpful tools to leave in the athletic center in case students felt their mental wellness was suffering. Information pamphlets covering a variety of mental health challenges, like coping skills for anxiety, were posted in visible locations. Student assistant programs were available as well.

**Poster Number: 15**  
**Athlete Burnout and the Impact of Various Levels of Perceived Social Support, Perceived Coaching Behavior, and Years of Sports Competition**

**Amy Clegg**

**Advisor: Dr. Jacob Frimenko**

There is a possibility of Burnout in softball athletes and there may be external stressors that contribute to it. Therefore, the purpose of this study was to investigate and understand the relationship between athlete Burnout and how it is influenced by various levels of Perceived Coaching Behavior, Perceived Social Support, and Years of Sports Competition. The Madonna University women's softball team (n = 32) was used to measure the study and its variables. Perceived Social Support and Coaching Behavior can significantly impact the physical and emotional well-being of softball players in many periods of their life. The study suggests that positive and encouraging words from a player's support system and coaches can reduce Physical and Emotional Fatigue, while negative and abusive words can lead to higher levels of Burnout. Years of Sports Competition had no effect on Burnout is also an important contribution. Perceived Coaching Behavior during both Team Development and Competitive years can significantly impact young athletes' physical and mental well-being.

Positive and encouraging coaching behavior was found to be associated with reduced levels of Physical and Emotional Fatigue, while negative and abusive

coaching behavior was associated with higher levels of Burnout. This study provides valuable insights into the factors that contribute to Burnout among softball players. It underscores the significance of fostering a positive support system and coaching behavior to promote players' physical and mental well-being.

**Poster Number: 16**  
**Change in Attitude and Knowledge of Collegiate Male and Female Track and Field Athletes After an Education Session**

**Abrianna DeBono**

**Advisor: Dr. Karen Schmitz**

This study was conducted to determine collegiate male and female track and field (T&F) athlete's beliefs regarding pre-workout nutrition, overall nutritional knowledge, and how the information impacted knowledge retention. The study began by recruiting male and female T&F athletes ranging in age from 18-23 years old. They drew letters to attend one of two sessions where they began by taking a pre-test to assess nutritional knowledge and gauge their attitude towards pre-workout nutrition. Both groups sat through identical 20-minute presentations covering basic nutritional information and specific pre-workout nutritional information. Group A made granola bars to reinforce the information in the lecture where group B played Jeopardy. Each group then took identical post-tests to see the impact of the nutritional education session. Finally, all participants were to complete a food log over the upcoming week to track foods consumed, time they ate, and time of their workout. The data showed group A had a 16.28% improvement in nutritional knowledge whereas group B had an average improvement of 7.38%. Group B yielded a higher pre-test average than that of group A. The researcher concluded that while 47.6% of participants found the session educational, it's inconclusive if there was a change in attitudes towards pre-workout nutrition as only one food log was returned. Further research with more education sessions is needed to determine if nutritional knowledge and attitudes are impacted by further education sessions.

**Poster Number: 17**  
**Beliefs and Feelings Towards Plant-based Diets Among Adults in the Metro Detroit Area**

**Kristin Eis**

**Advisor: Dr. Karen Schmitz**

Plant based eating revolves around meals that are

made from fruits, vegetables, legumes, whole grains, herbs, seeds, and nuts. Through research, findings have shown that plant-based diets can help to reduce high blood pressure, diabetes, heart disease and decrease mortality rates (What is a plant-based diet and why should you try it?). The purpose of this research was to look at the beliefs and feelings towards plant-based diets among adults in the metro Detroit area. The survey was a set of 17 questions and pretested to a group of five graduate students. Data collected from the surveys using a software called Qualtrics. Majority of those who took the survey were Caucasian females between the ages of 18-25. Out of the 150 participants who took the survey, 130 said that they do not currently follow a plant-based diet (86%). However, 73 participants (48%) responded saying that they would be interested in reducing the amount of red meat intake in their daily lives. In conclusion, most of the participants did not follow a plant-based diet with 49 (32%) participants responding that they would be worried about not getting enough protein in their diets. After analyzing the data, it was found that there was a 0.04 correlation between gender and the interest level in reducing the amount of meat in one's diet. Overall, it could be concluded that education about plant-based diets should be given to those in the Wayne and Oakland County communities on the benefits that plant-based diets can have for one's overall health and longevity.

**Poster Number: 18**  
**Women Leadership in the Automotive Industry: A Qualitative Narrative**  
**Ashley Espinoza**  
**Advisor: Dr. Jacob Frimenko**

Women have been in the workforce for 70 years and comprise nearly half of the workforce in the United States as of 2022. When further examining specific aspects of women in the workforce, evidence demonstrated that women are an untapped area of talent in the automotive industry (Deloitte, 2015). The gap between how men and women are represented, supported, and promoted, especially in leadership positions within the automotive industry, guided the current study. This qualitative research used semi-structured interviews of 8 women in the automotive industry and aimed to understand characteristics and attributes that have helped place and sustain participants into leadership roles. The research was a theoretical examination of protective factors in career development posed by Šverko & Babarović (2019), which included the following: relational (i.e., peer support and collaboration), personal (i.e., skills and traits), and situational (i.e., workplace environment and external

influences). Results demonstrated that an integrated framework of all factors are necessary for developing and sustaining strategies for future women to be in leadership roles. Recommendations and future directions are provided.

**Poster Number: 19**  
**The Impacts of Leadership Styles on Employees Performance**  
**Reta Fadheel**  
**Advisor: Dr. Jacob Frimenko**

Nowadays, organizations are functioning in a highly aggressive atmosphere. The operative leadership style involves handling the corporation effectively. The organizational accomplishment varies on its leadership types and the efficiency of its employees. The efficiency of distinctive employee implementation alters the leader/supervisor. A successful leader can improve individual employee performance through appropriate leadership style and preserve high commission and talent within the company because they recognize that high-performance employees are exceptional resources of the organization. A leader's performance is critical to progressing job performance and remembering proficient employees for a more extended period in the organization. According to their problems or circumstances, a leader needs to retain appropriate leadership styles. In some cases, employees leave the manager, not the organization. Nevertheless, other issues exist, such as job fulfillment, elastic working environment, work-life balance, work environment, and occupation development prospects. This paper recognizes the influence of transactional, transformational, and authoritative leadership styles on employees' maintenance and job performance. In this study, two main variables consist of the theoretical framework. They are independent variables (transformational leadership style, transactional leadership style, and authoritative leadership style) and dependent variables (employee performance). A sample of 30 respondents has been convenient taken to the survey at United Wholesale Mortgage. The processor assisted team members took the questionnaire, and data was collected through structured questionnaires. Participants were asked to designate their preferences on a five-point Likert scale. Data analysis was conducted by using an MS-Excel sheet and regression data analysis. Graphs and tables were also used for data presentation.



**Poster Number: 20**  
**Transition of Care Management**  
**Diana Ferraiuolo and Andrea Frazzetta**  
**Advisor: Dr. Vickie Gordon**

Transitions of care can lead to increased risk of readmission to a hospital and medication errors during transfers to alternative care sites (e.g., hospice). Following hospital discharge individuals with 2 or more comorbidities are at 20% risk for readmission within 30 days (Hernandez et al., 2020). These readmissions cost the healthcare system \$17 billion. In individuals transferred to hospice care, more than 33% experience a medication error which can lead to adverse events (e.g. uncontrolled pain). Transitional Care Management (TCM) by Medicare and Joint Commission Patient Safety Goals describe best practices for transitions of care. The recommendations include a phone call to the patient within 2 days of discharge and in-person follow up within 14 days with the patient's primary care provider (Field et al., 2014). Those transferred to hospice require a medication reconciliation upon admission.

A retrospective review of 20 medical charts will assess notification of patient discharge to PCP, follow-up telephone call from PCP to patient, patient appointment with PCP within 14 days of discharge, and a completed medication reconciliation upon transfer to hospice. Compliance with standard of care should result in no readmission to hospital within 30 days and no medication errors (duplication, dosage error, or missing medication) upon hospice admission. Data analyzed using descriptive statistics.

This population can especially benefit from the Advanced Practice Registered Nurse (APRN), as they are often providers in these practice settings. Knowledge of the guidelines and their implementation can impact readmissions and prevent medical errors.

**Poster Number: 21**  
**Resolving Barriers to Care for LGBT+ Veterans: A Social Work Approach**  
**Meg Halstead**  
**Advisor: Dr. LaToi Shiree Smith**

In recent years, there has been a shift within the Veterans Health Administration (VHA) toward more inclusive health care for LGBT veterans. While these

forward strides are significant, many LGBT veterans remain reluctant to access care or seek benefits through the VA; those who do often encounter a healthcare environment informed by the overarching military culture which remains predominantly cisgender, heterosexual, and male. Resolving Barriers to Care for LGBT+ Veterans:

A Social Work Approach proposes a model for a mutual aid group based on the Los Angeles LGBT Center's Stand Down initiatives. This model aims to center the voices of LGBT veterans and facilitate opportunities to interface with veteran's services in pursuit of inclusive and culturally competent models of care.

**Poster Number: 22**  
**Smartin' Up your Knowledge of Asthma Treatment**  
**Kayla Hawthorne, Brianna Alves, and Linsey Lozon**  
**Advisor: Dr. Patricia Clark**

Asthma is a long-term airway disease that causes inflammation and swelling of the airways.

According to the Asthma and Allergy Foundation, approximately 25 million people in the United States have asthma (Asthma and Allergy Foundation, 2022). Asthma is typically under-diagnosed and under-treated in low- and middle-income countries (World Health Organization, 2022). Untreated asthma can lead to sleep disturbances, tiredness during the day, and poor concentration (World Health Organization, 2022). In 2020, the NHLBI Asthma Management Guidelines recommended SMART in patients with moderate persistent asthma ages 4 and older. The SMART initiative employs a single inhaled corticosteroid and formoterol combination inhaler product that is used daily and as needed for asthma. Prior to this update, asthmatic patients had a daily inhaled corticosteroid inhaler for maintenance and a short acting beta 2 agonist inhaler for reliever (University of Connecticut School of Pharmacy, 2022). This quality improvement project will look at two process indicators, patients diagnosed with moderate persistent to severe persistent asthma are prescribed a single inhaled corticosteroid and formoterol inhaler based on the SMART guidelines and a documented visit 2-6 weeks after initiation of SMART guidelines to ensure compliance with medication regimen. Twenty random medical records will be examined in a retrospective review. The outcome indicator for this project is there will be a reduction in asthma exacerbations after initiation of this inhaler. Data will be analyzed using descriptive statistics.



The role of the APRN in this population is to adhere to SMART guidelines for patients with moderate to severe asthma.

**Poster Number: 23**

**A Comparative Investigation of Reported Near Miss Safety Events in Healthcare as Influenced by “Good Catch Programs”**

**Melissa Hileman**

**Advisor: Dr. Jacob Frimenko**

A near miss, also known as a “good catch,” is defined as an event or occurrence that could have resulted in patient harm but was prevented due to active recovery efforts by caregivers or by chance. Near miss events may occur up to 300 times more often than events that cause harm. These occurrences must be reported to administration so potential risks can be eliminated prior to harm reaching the next patient. Underreporting is common problem. To increase reporting, some hospitals implement a recognition/reward-based “good catch program.” This quantitative study examined the impact of good catch programs on the ratio of near miss events to events that harm patients, as reported by employees. Additionally, the relationship of different program elements and this ratio were examined. Thirty-nine acute care hospitals owned by a common corporate entity participated in the study. Event reporting data were obtained for a six-month timeframe, the ratio was calculated, and hospital leaders provided information regarding good catch programs at their organizations. Contrary to current literature, no significant difference in the ratio was found. Despite this finding, motivating components of the programs were analyzed. Likely contributors to the variance in data included small sample size, narrow timeframe studied, and unmeasured influences such as, organizational culture, leadership characteristics, and ease of reporting.

**Poster Number: 24**

**I Cannot Tell a Fib: CHA2DS2-VASC Scores and Anticoagulant Prescribing in Patients with Atrial Fibrillation**

**Joanna Hopkins and Colleen Curran**

**Advisor: Dr. Patricia Clark**

Atrial fibrillation (AF) is a rhythm disorder in which the atria of the heart beat irregularly, causing stasis of blood in the heart chambers. Individuals with AF are five times more likely to suffer from a cerebrovascular accident (CVA). Risk factors for AF include increasing age, obesity, sleep apnea, hypertension, and tobacco usage. AF accounts

for 45,000 hospitalizations annually (Staerk, et al., 2017). The disease process and its sequelae lead to increased healthcare spending for patients, taxpayers, and healthcare organizations (Freedman, et al., 2020).

The CHA2DS2-VASC stratifies an individual’s risk for thromboembolic events (Gutierrez & Blanchard, 2016). For patients with AF and a CHA2DS2-VASC score of three in women and two in men, oral anticoagulants (OACs) are recommended to reduce the risk of thromboembolic events (January et al., 2019).

This quality improvement project examines guideline compliance for patients with AF and a CHA2DS2-VASC score requiring OAC. Twenty random medical records will be examined in a retrospective review, and data will be analyzed using descriptive statistics. Process indicators include documentation of a CHA2DS2-VASC score for all patients with a diagnosis of AF; documentation of an OAC for patients with a CHA2DS2-VASC score indicating a need for OAC; and finally, documentation of contraindication for OAC therapy in individuals with AF and not on an OAC. The expected outcome is patients on OACs with a CHA2DS2-VASC score greater than two will not experience thromboembolic events or severe bleeding events. The role of the advanced practice nurse will be discussed.

**Poster Number: 25**

**Causes and Implications of Educator Burnout**

**Janice Juliette**

**Advisor: Dr. Sue Ann Sharma**

The purpose of this study was to examine the risk factors that contribute to educator burnout and the implications that it could have for the field of education. A qualitative study was conducted by surveying and interviewing a selected group of five participants – four who are currently employed as teachers, and one who has chosen a change in her career outside of education. Interviews were compiled to present case study narratives that illustrated the individual experiences of the participants relating to teaching experiences, risk factors that led to symptoms of burnout, and the implications on their future career choices. Data revealed that 100% (5 out of 5 participants) had experienced educator burnout throughout their teaching careers, with one participant having left the teaching profession. Three out of the four professionals (75%) currently teaching desire a change in their career due to a perceived lack of support from administration, unrealistic job expectations, an increasing lack of materials/resources, and a lack of professional respect. Educator burnout is not a new phenomenon, nor is it exclusive to the COVID-19 pandemic. It is a serious issue that, left unaddressed, will continue to

contribute to mental health concerns for educators, negative impact on classroom instruction, and rising attrition rates.

**Poster Number: 26**  
**The Popularity and Perspectives of Intermittent Fasting Diets Among Women Trying to Lose Weight**

**Kenda Khattab**  
**Advisor: Dr. Karen Schmitz**

Intermittent fasting (IF) diets have been increasingly popular for managing weight loss and some health problems. IF means stopping eating for some time each day or week with many techniques. However, the IF diets are still not recommended for weight loss or other health conditions (Gordon, 2021). Therefore, this study was designed to determine the prevalence of IF diets and the perspectives of women who use IF to lose weight in Wayne County, Michigan. Participants were females between 20-60 years old who were following IF diets. The survey was designed using Qualtrics and consisted of 17 questions. An online link to the survey was distributed through WhatsApp and Facebook groups. One hundred and forty-four females who responded to the survey, ages 31-40, were the most group who followed a diet at 43%. The survey showed that females have high expectations of losing weight through IF diets at 56.62%. Participants considered the IF diet safe at 36%. Also, 52% of the participants learned about IF diets from social media, and they mainly chose IF diets for weight loss at 35%. The participants thought the main disadvantage was feeling tired, fatigued, and hungry, at 37.39%. The data was exported into an excel spreadsheet to study the statistical correlation between variables. There was a correlation between the variable trying to lose weight and IF diets type at a correlation coefficient (+0.25). In the future, more investigation is needed to understand women's viewpoint of IF diets and what they risk or gain.

**Poster Number: 27**  
**Identifying Polypharmacy in the Elderly Using Medication Reconciliation**  
**Brittany McLaughlin and Sawsan Hashwi**  
**Advisor: Dr. Patricia Clark**

Falls in the elderly population (> 65 yrs) continue to be prevalent and remain the leading cause of injury and death within this population. There are about 36 million falls reported in the elderly and 32,000 of those falls resulted in a death (CDC, 2020). Many falls are due to polypharmacy which is defined as being prescribed > 5 medications (Varghese, Ishida, & Koya, 2022).

This project looks at two process indicators: medication reconciliation assessment for patients > 65 years and assessing for polypharmacy in urgent care/primary care offices. Furthermore, assessing patients for medication reconciliation and polypharmacy upon discharge from the hospital due to a fall. For this study, forty random medical records will be examined in a retrospective review. The expected outcome is documentation of falls within 30 days. Data was analyzed using descriptive statistics. The APRN has a role in preventing falls in the elderly by following the guidelines that state that medication reconciliation is performed to avoid polypharmacy which reduces fall risk (AGS, BGS, and AAOS Falls Prevention, 2001).

**Poster Number: 28**  
**Comparative Study of ERPS and Microsoft Excel for Efficient Project Quoting in the Glass Fabrication Industry**  
**Thomas Minier**  
**Advisor: Dr. Jacob Frimenko**

Accurately and efficiently providing project quotes is indispensable for the success of a business that wants to remain competitive in the manufacturing industry. This research proposes an alternative approach to improve the total efficiency while maintaining the accuracy of orders for commercial project quoting in the glass fabrication industry. Due to the unique nature of commercial quotes, businesses need to be adaptive and build quotes tailored to each job. Enterprise resource planning software (ERPS) is used to aid in the entry and delivery of project estimates, while Microsoft Excel is an adaptive tool that can be tailored to many services, including project estimation. By comparing both tools in a pairwise manner, there were benefits to each that can help businesses adapt to the ever-competitive and fast-paced market.

Overall, this study suggests that a combination of ERPS and Microsoft Excel can be used to improve the efficiency and accuracy of commercial project quoting in the glass fabrication industry, depending on the specific needs of the business.

This study proposes an alternative approach to improve the efficiency and accuracy of commercial project quoting in the glass fabrication industry by comparing the benefits of using Enterprise Resource Planning Software (ERPS) and Microsoft Excel. The results suggest that a combination of ERPS and Microsoft Excel can be used to enhance the process

of project estimation, depending on the specific needs of the business.

**Poster Number: 29**  
**New Onset Atrial Fibrillation Assessment and Prevention**  
**Katina Minor-Weiss and Noveen Rehman**  
**Advisor: Dr. Patricia Clark**

Is the CHA2DS2-VASc effectively used to manage oral anticoagulants in adults newly diagnosed with atrial Fibrillation? Atrial Fibrillation (AF) is the most common cardiac arrhythmia. It is associated with the risk of stroke and thromboembolism, causing significant morbidity and mortality. As such, the American Heart Association (AHA)/American College of Cardiology and the European Society of Cardiology recommends using the CHA2DS2-VASc score as a validated stroke risk assessment tool for early initiation of AF management and early rhythm control therapy. However, despite these recommendations, 30.0-60.0% of AF patients do not receive indicated anticoagulation (Saeed et al., 2020). Therefore, this project will evaluate 20 random medical records in a retrospective review. The two process indicators for this project are documentation of a CHA2DS2-VASc score within 48 hours of new onset AF being diagnosed and providers ordering oral anticoagulation (OAC) for CHADS2-VASc score of 2 or greater. The predicted outcomes are that new onset AF patients who received (OAC) would not have adverse effects of bleeding and Ischemic stroke during hospitalization.

**Poster Number: 30**  
**The Depth of a Relationship with Christ in Correlation to Levels of Kindness**  
**NaTasha Moden**  
**Advisor: Dr. Jacob Frimenko**

This study measures the depth of a relationship with Christ in correlation to levels of kindness. The goal was to expose whether having a deep intimate relationship with Christ had a profound impact on the levels of kindness an individual demonstrates. The levels of kindness branched off into three main categories: 1) generosity, 2) words of affirmation/encouragement, and 3) acts of service. A survey was constructed to gather the data, which can be found on p. 4 in the appendices, for participants to complete and turn in. These surveys were available at three different religiously affiliated locations. These locations were: 1) ReNew Ministry in Taylor, 2) Metro City Church Riverview location, and 3) Metro City Church Taylor location. The participants' walk

with Christ was defined using the Duke University index measurement of religiosity survey which consisted of five questions. Moreover, there were three additional questions related to each of the main categories determining levels of kindness. The data revealed regression charts with visible lines of best fit revealing a positive correlation. Based on the results of the data, it was discovered that Christ indeed creates a correlation amongst the levels of kindness demonstrated by an individual. More significantly, having a deep, intimate relationship with Christ impacts the lives of Christian individuals and those around them through acts of kindness received.

**Poster Number: 31**  
**Social Media Influence on Young Adults' Dietary Behaviors**  
**Rachel Mozak**  
**Advisor: Dr. Karen Schmitz**

Social media has become increasingly worrisome over the last decade, more specifically in the field of nutrition. There are little to no restrictions for posting information regarding nutrition. The purpose of this research was to determine how social media affects self-esteem, body image, and caloric intake in young adults between the ages of 18 to 30 years of age in the state of Michigan. I conducted a survey generated through Qualtrics on Instagram and Facebook for participants to take. The survey consisted of 39 questions and was made anonymous to protect the participants' identities. Among the respondents 46% identified that weight was very important to them after looking at social media posts. Forty-eight percent of participants identified that they diet to lose weight every month and were also extremely likely to change their dietary habits to look like a social media influencer. Thirty-six percent identified that social media does influence their caloric intake.

**Poster Number: 32**  
**The Comparison of College Athletes Nutritional Knowledge and the Lack of Access to Sports Nutritionists**  
**Deric Murray**  
**Advisor: Dr. Karen Schmitz**

Low nutritional literacy and the misinformation that is being given to athletes has had a negative effect on athlete's health (Rowan university, 2021). The purpose of this project was to evaluate the awareness that athletes have on what types of food and beverages they consume day to day. The survey consisted of 60 people that were

given a survey on google forms.

The survey was pre-tested at Madonna university through the nutrition and wellness program. The survey gave each participant the chance to answer question about general nutrition knowledge. The survey had 26 general nutrition questions and was comprised of multiple choice, true and false and short answer questions. The participants were selected through coinvent sampling. The participants had to be female athletes between the ages of 18 to 25 attending school in southeastern Michigan. From this pool, all 60 surveys administered were recorded after distributing the survey for 3 weeks. The data showed 87.9% of athletes would take advantage of a nutritionist, 70.7% indicated that they have never had a nutritional consult before. The results of the study show there is a need for better access to sports nutritionists. The study displayed a positive correlation of .78 between athletes seeking nutrition advice. The results of the survey will help to better understand current athletes' nutrition knowledge and what barriers are faced when performance eating.

**Poster Number: 33**  
**The Impact of Nurse Retention Programs on Registered Nurses' Satisfaction**

**Judith Hagar Odom**

**Advisor: Dr. Jacob Frimenko**

Across the world, there is an issue with the shortage of nurses and the high turnover rates, and Ghana is no different. This study investigates the impact of nurse retention programs on registered nurses' satisfaction: the leadership strategies employed by senior nurse managers to increase nurse retention in hospitals in the Archdiocese of Cape Coast to improve nurse satisfaction. Six (n=6) hospital senior nurse managers who are now employed as senior nursing management in a hospital. The studies further identify the factors that affect retaining experienced nurses in nursing units of inpatient facilities. From a sample of 108 (n=108) respondents to the survey, it was discovered that work environment, job satisfaction, and career development are the factors that affect registered nurses' retention. Three subthemes emerged from the data analysis of interview responses development/training, organizational challenges, and recruitment strategies. The two main themes that emerged from the investigation were leadership strategies and retention strategies. The leadership strategies were the senior nurse managers supervising, coaching, and mentoring registered nurses whereas the retention strategies were methods for encouraging and retaining registered nurses. The result will help hospitals retain

experienced nurses by providing leadership strategies and encouraging positive social change.

**Poster Number: 34**  
**A Comparison of Disordered Eating Behaviors in Different College Majors**

**Aleksandra Rokosz**

**Advisor: Dr. Karen Schmitz**

Many people who experience symptoms of disordered eating never receive professional help or a diagnosis. One characteristic of disordered eating is an intense fixation on food. This experiment sought to determine if there is a correlation between disordered eating behaviors and college major. The researcher hypothesized that those in nutrition related majors tend to exhibit more disordered eating behaviors than other college majors. 116 participants from the ages of 18 to 56 took part in this study. Participants were Michigan residents and current college students or had graduated in the past ten years. They completed an online survey of thirty questions regarding the frequency of disordered eating behaviors and their willingness to seek professional help for disordered eating. The results of this research suggest that there is not a significant difference in the rates of disordered eating among different college majors, but nutrition and dietetic majors may be significantly more likely to seek help for disordered eating. Therefore, it is necessary to educate non-nutrition majors on the benefits of treatment for disordered eating.

**Poster Number: 35**  
**The Effect Communication has on Business Transactions and Gross Profit**

**Ian Rush**

**Advisor: Dr. Jacob Frimenko**

Communication is an essential aspect of any business operation, and it has a significant impact on the sales and gross profit of those sales. Effective communication plays a crucial role in building and maintaining relationships with customers, stakeholders, and employees, which in turn can lead to increased sales and higher profits. In today's competitive business environment, companies that can communicate effectively are more likely to succeed than those that cannot. This is particularly true in sales, where communication skills are crucial for closing deals and building lasting relationships with customers.

In this context, businesses that invest in communication training and tools are likely to see a positive impact on their sales and gross profit margins. In this way,



communication is a critical component of business success, and companies that prioritize it can reap significant rewards in terms of increased revenue and profitability.

**Poster Number: 36**  
**An Exploration of Factors Impacting Retention Rates of Undergraduate Students at Madonna University**

**Katherine Sartori**

**Advisor: Dr. Jacob Frimenko**

University transfer students are a population with increasing complexities that often draw the attention of administrators, specifically regarding matriculation and retention rates. This is a preliminary exploration of factors impacting the retention rate of transfer students on Madonna University's (MU) main campus in Livonia, Michigan. This study looked for correlations between retention rates and basic demographic and merit information. "Educational institutions are social organizations and are complex entities. Further students are complex individuals who bring diverse experiences to the college experience" (Laanan et al., 2010). Throw in a tough economic landscape, rising tuition costs, and trend in declining enrollment; it is no wonder that transfer students are of interest to university administrators. Colleges and universities need the transfer student population more than ever. MU enrolled a total of 908 transfer students from the fall of 2017 through the fall of 2021. Data were removed from satellite and online enrollees; narrowing the focus to 618 transfer students enrolled on MU's main campus. The data analyzed showed freshman to have lower retention rates than their upperclassman counterparts. Data also illustrates that women are retained at a higher rate than men; particularly those who are 23 years of age or younger. These findings suggest that it would be beneficial for administrators at MU to focus on initiatives specifically geared toward the retention of freshman and male students.

**Poster Number: 37**  
**Project Pregnant-See**

**Eman Sobh**

**Advisor: Dr. LaToi Shiree Smith**

Project Pregnant-See is a project aimed to help pregnant women who suffer from substance abuse disorder. Using research to identify successful interventions, Project Pregnant-See focuses on Cognitive Behavioral

Therapy, Motivational Interviewing, and in-house rehab clinic as the basis of this center-focused treatment center. This project's goals are to break old habits and behaviors, enhance empathy and confidence skills, and eventually lead patients into self-efficacy. Our ultimate goal is to help patients lead a wonderful and fulfilling life with their future child. The research is based on existing literature, and did not involve directly working with human subjects.

**Poster Number: 38**  
**Adult Dietary Protein Sources and Willingness to Incorporate Bugs into the Diet as a Protein Source**

**Samuel Speen**

**Advisor: Dr. Karen Schmitz**

Diets high in red meat have been associated with numerous health problems, such as hyperlipidemia, cardiovascular disease, and colorectal cancer. Additionally, the process used to manufacture red meat and other animal products has also been associated with negative environmental consequences.

These consequences include causing increased global greenhouse gas emissions, having a high-water footprint and extensive land usage, and causing eutrophication and deforestation. This study aimed to determine adults' primary dietary protein sources, their knowledge of how dietary protein sources impact the environment, and their willingness to incorporate bugs into the diet as a protein source. To obtain this information, a survey was posted to social media sites, Facebook, and Instagram, which allowed adults between the ages of 18-34 years to partake in the study voluntarily. A total of 207 responses were received pre-disqualification. After age and non-completed survey disqualification, there were 118 responses. Results showed that poultry and beef are the most consumed animal-based dietary protein sources, while nuts, seeds, and whole grains are the most consumed plant-based dietary sources. The results of a two-tailed t-test showed there is a significantly greater willingness among males to incorporate bugs into the diet compared to females ( $p < 0.046$ ). Additionally, a Pearson correlation coefficient test was conducted to see if there is a correlation between age and willingness to consume bugs. Results showed a correlation of  $-0.067$ . Future food companies intending to use bugs to improve sustainability and consumer health will benefit from the research's findings.



**Poster Number: 39**  
**It's Not Always a Matter of the Heart**  
**Nadine Staley Bishop**  
**Advisor: Dr. Patricia Clark**

Chest pain accounts for approximately 7.6 million annual visits to the emergency department (ED) in the United States, making chest pain the second most common complaint. Patients present with a spectrum of signs and symptoms reflecting the many potential etiologies of chest pain. Clinicians in the ED focus on the immediate recognition and exclusion of life-threatening causes of chest pain. This topic review will discuss life-threatening and common causes of chest pain and the provider approach to the evaluation and management of suspected acute coronary syndrome (ACS). This project looks at 3 process indicators (utilization of a clinical decision pathway tool (CDP), ECG obtained within 10 minutes of arrival and reviewed, and assessment of cardiac troponins). Process indicators represents an important approach of documenting the quality of care of patients presenting to the ED with chest pain. Twenty random medical records will be examined in retrospective review. The expected outcome of patients presenting with acute chest pain receive appropriate early evaluation and management and will not exceed the recommended hospital length of stay of 3 days. Data collected will analyzed using descriptive statistics.

**Poster Number: 40**  
**Early Nutrition in Mechanically Ventilated Patients**  
**Chelsea Stimbert and Courtney Giles**  
**Advisor: Dr. Patricia Clark**

Critically ill patients in the intensive care unit are at an increased risk for malnutrition given their increased metabolic rate and impaired nutritional substrates. Oftentimes, nutrition is overlooked due to alterations in other body systems. Malnourished patients are at risk for infections, and are difficult to wean from the ventilator because of muscle fatigue and reduced muscle mass. Thus, nutrition optimization in the critically ill population is essential. Unfortunately, multiple factors may hinder adequate nutrition delivery. Healthcare providers who order enteral nutrition (EN) tend to order on average only 60%–80% of energy requirements. Moreover, patients typically receive about 80% of what is ordered, resulting in only 50% of target goal energy per day (McClave et al., 2016). This project looks at two process indicators: Documentation of enteral nutrition ordered within

48 hours of intubation and documentation of at least 30 kcal/kg/day. Forty random medical records will be examined in a retrospective chart review. The Advanced Practice Registered Nurse (APRN) plays a role in ensuring critically ill patients are receiving adequate nutrition to minimize risks of ventilator adverse events, delayed ventilatory weaning, and prolonged hospital stays in order to improve patient outcomes and reduce overall costs.

**Poster Number: 41**  
**Consumer Knowledge and Attitudes Towards Food Labels: a Research Study of Southeast Michigan Adults**  
**Lindsey Sutter**  
**Advisor: Dr. Karen Schmitz**

The main method for consumers to identify the nutritional value and ingredients in the food they eat is through labeling. Federal regulating agencies use food labels to relay nutritional information to the consumer. It is then the responsibility of the consumer to comprehend what it means. The purpose of this research was to explore how well adults understand food labels and gain insight on their attitudes towards them. This research surveyed 192 adults in Macomb, Oakland, and Wayne counties of southeast Michigan. Results showed that 75% of participants said they feel nutrition is a top 3 priority for their health, and 38.5% look at food labels on the majority of the products they purchase. Thirty-four percent said they do not look at the food label because they do not know how to comprehend one. Most participants correctly answered questions about technical attributes of a food label such as determining portion size, total calories, and that the ingredient listed first meant that it weighed the most. However, knowledge of ingredients varied greatly, with 47% of participants thinking guar gum was a sweetener and 42% of participants thinking potassium bromate, a possibly carcinogenic additive, was a vitamin/antioxidant. Most people had strong desires for food labels to be more transparent and wished that they were easier to understand and that they were a bigger priority of regulating agencies. Furthermore, data also showed that there is a significant positive correlation between education level and knowledge of ingredients on food labels ( $t = 16.7$ ).

**Poster Number: 42**  
**Self-Confidence Levels Influenced by Gender and Athletic Background Amongst University Students**

**Kyle Tinnion**

**Advisor: Dr. Jacob Frimenko**

Many people often associate the student-athletes as the “mini-celebrities” on campus. While they may be known more around campus, they still experience the same thoughts as non-student athletes.

It is not all just stress-free living with no other concerns. It is natural for all university students to experience certain thoughts and feelings and then display certain behaviors based upon those feelings. All of this correlates with our own self-confidence.

Self-Confidence can be described as a feeling of trust in one’s abilities, qualities, and judgment.

It plays a huge part in an athlete’s ability in their sport, student’s ability on their upcoming exam, and a person’s ability to thrive in social settings.

Because of this, it is important to better understand how it can affect us as people. The purpose of this study was to quantify the construct of self-confidence and how it is influenced by gender and by the participation in university athletics amongst students at Madonna University. The study was conducted at Madonna University through the use of a survey that 108 students participated in. The results of the survey did not show any significant findings to suggest that men versus women, nor athlete versus non-athlete, have more of an impact on self-confidence than the other. With this considered, more research is necessary to further understand the roots that drive our self-confidence levels.

**Poster Number: 43**  
**It Ain’t Easy being Wheezy**

**Rachel VerVaecke and Gabrielle Rogers**

**Advisor: Dr. Vickie Gordon**

COPD is the sixth leading cause of death in the US and third leading cause of death worldwide. COPD exacerbations lead to frequent hospitalizations requiring advanced respiratory support, steroid and antibiotic use, and subsequent worsening of disease process. According to the American Lung Association, the total economic cost of COPD is approximately \$50 billion each year. Preventing exacerbations is paramount to promoting quality outcomes and reducing the burden of COPD on the healthcare system. According to studies that have informed the GOLD guidelines for COPD treatment, patients with high blood eosinophil counts

are more likely to have increased lung inflammatory markers, and will have better results with use of inhaled corticosteroids (ICS). In our project, we will be studying adults aged 50 and up with a history of COPD and a blood eosinophil count greater than or equal to 100. This study looks at two process indicators as indicated by the GOLD criteria: these patients will be prescribed an inhaled corticosteroid in addition to their long acting bronchodilator and pulmonary function tests will have been performed in the last year. Due to the involvement of the authors in these two settings, compliance with the GOLD criteria guidelines will be compared between the primary care and pulmonology settings in order to identify gaps in care for COPD patients. Twenty random medical records will be examined in a retrospective review and data will be analyzed using descriptive characteristics. The APRN can improve outcomes in this population by following criteria and preventing worsening disease, improving the burden of COPD on healthcare.

**Poster Number: 44**  
**Are Consumers Ready to Purchase their Next New Car Online?**

**Mitchell Vinkler**

**Advisor: Dr. Jacob Frimenko**

Most Americans love their automobiles. What they don’t love is the process of buying a new automobile. Negotiable pricing schemes are discriminatory and deceptive, leaving many consumers unsure whether or not they got a good deal. Consumers are not the only party with negative sentiments towards the current new automobile sales model. Startup electric vehicle (EV) manufacturers are engaged in legal battles over Automotive Franchise Law – a legacy system that bars most automobile manufacturers from selling directly to consumers. This study assessed consumer readiness for the online automotive market, where dealerships forgo sales revenue and become agents of the manufacturer. In addition, this study determined if consumers believe that automotive franchise law exists for their benefit. Study participants completed a survey and interview. The survey provided quantifiable data used to generate a trust and information quotient that would predict if a particular consumer was likely to buy their next new car online. Ultimately, data analysis indicates most Americans are not ready embrace the agents of the manufacturer retail sales model. Furthermore, results indicate that the vast majority of participants believe Automotive Franchise Law exists solely to protect dealerships and their existing business model.

**Poster Number: 45**  
**Preschool Transitions: Lunch to Nap**  
**Annette Wimberley**  
**Advisor: Dr. Sue Ann Sharma**

This action research project of adding yoga and calming music to a consistent daily schedule to help with a smooth transition from lunch to rest time. Transitioning preschoolers from lunch to their cot can be very challenging. The children who don't sleep well can have behavioral problems and poor attention spans throughout the afternoon. Those who do sleep, wake up refreshed, and ready to tackle the rest of their day. Making a smooth transition from the lunchroom to their napping cot can be difficult. Adding yoga and soothing music before nap time may be key to a restful sleep. Yoga is the stretching of muscles and breathing techniques that calm the mind and body. It is also shown to decrease stress and anxiety. Soothing music lowers your heart rate, breathing, and blood pressure allowing for a more peaceful sleep. Young children often reach an age when they think naps are not necessary. They have busy, curious minds and do not want to rest their bodies. However, for teachers and parents those naps are a happy, calm time that is desperately needed. A good amount of sleep is essential for a young child, and lack of sleep will negatively affect all areas of their development, learning, physical health, and behavior. Therefore, this study investigates whether adding yoga exercises and music to an existing consistent daily schedule will result in a smooth transition from lunch time to rest time.

## Faculty Poster

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**Poster Number: 46**  
**Perceived Stress and Coping Mechanisms in Undergraduate Nursing Students**  
**Dr. Kathleen Rittenhouse**  
**Advisor: Dr. Diane Burgermeister**

Nursing is a challenging profession which requires years of academic and clinical training. Students are vulnerable to periods of stress due live patient situations that may deal with death and dying. While stress in nursing cannot be eliminated, nursing schools can help assess and promote resilience, to improve academic and clinical success.

The purpose of this project was to identify and measure the stress level that nursing students face, and describe the coping mechanisms used by students to help them survive the rigors of nursing school. A quantitative descriptive study was conducted using two questionnaires that queried the students' perspectives of their perceived stress; The Perceived Stress Scale (PSS) and the Brief (COPE) scale, which addressed the students coping behaviors. The surveys were sent to 239 BSN nursing students. Of the 239 students, 172 students completed both the PSS and brief COPE. The level of stress measured from the PSS resulted in 24% of students reporting high stress, 63% reporting moderate levels and 13% had low perceived stress. Problem-focused strategies were the most frequent positive coping used, while self-blame and being hypercritical were the most negative coping mechanisms students used. Religion is considered a positive coping strategy, using prayer and finding comfort in spiritual practices. This was found to be the least used coping strategy found in this study.

The aim of this study will hopefully contribute to the growing knowledge regarding stress and coping among nursing students. Stress during nursing education has a major effect on the nursing workforce and nursing faculty can help assist nursing students in identifying and dealing with their stress and stressors.

# Symposium for Research, Scholarship and Creativity Awards

## College of Arts and Sciences

Science and Mathematics Research Award  
Sam Speen – Graduate Student, Nutrition and Dietetics

## School of Business

Michael F. McManus Jr. Award for Leadership and Scholarship  
Maci Best - Undergraduate Recipient  
Mitchell Vinkler – Graduate Recipient

## College of Education and Human Development

Learning Outcome Assessment Project (LOAP) Award  
Paige Burke  
Destiny Carr  
Kattie Popko

National Association of Social Work – Michigan Chapter Awards  
*Social Work Student Of The Year*  
BSW Award – Elizabeth Nagi  
MSW Award – Domonique Smith

## College of Nursing and Health

Sigma Theta Tau – Kappa Iota Chapter Outstanding MSN Student Award  
Michael Mannina

Sigma Theta Tau – Kappa Iota Chapter Outstanding DNP Student Award  
Laura Van Horn

# Madonna University Institutional Review Board 2022-2023

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Mary Urisko, J.D.  
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## Thank you to our poster presentation judges

Jeffrey Cordell

Tracey Chan

Tara Kane

Karen Obsniuk

Susan Panek

Michelle Proctor

Elena Qureshi

Kathleen Rittenhouse

Karen Schmitz

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