

FIU

Robert Stempel College
of Public Health
& Social Work

FIRST ANNUAL

RESEARCH DAY **20** **19**

Join us for a showcase of Stempel College
students' efforts and engagement in research

9AM-11AM

**3 Minute Thesis
(3MT) Competition**

Complimentary breakfast served

11AM-1PM

**Poster
Presentations**

Complimentary lunch served

EVENT DETAILS:

Friday, February 15th
9am to 1pm
CBC Room #232

Stempel College Research Day Agenda

Date: Friday, February 15, 2019

Time: 9:00 a.m. to Noon

Location: MMC Campus, College of Business Complex (CBC), room 232

RSVP: <https://go.fiu.edu/stempelresearchday2019>

9:00 a.m.	Check-in/Registration
9:30 a.m.	Dean's Welcome Remarks
10:00 a.m.	3MT Competition Begins
10:45 a.m.	15-minute break
11:00 a.m.	Poster Presentations
11:45 p.m.	Announcement of 3MT Winners
Noon	End of Program and Lunch

3MT – Three -Minute Thesis Competition Presentations

Angel Algarin

Program: Ph.D. in Public Health – Epidemiology

Title: The effect of stigma on HIV health outcomes and prevention

Wissam Al Khoury

Program: Ph.D. in Public Health – Health Promotion and Disease Prevention

Title: Generation Net: Exploring Internet Usage and Its Association with Academic Performance, Mental Health, and Sleep Habits Amongst College Students

Alhanoof Alohalay

Program: PhD in Dietetics and Nutrition

Title: The Effect of Nutritional Supplementation on Biomarkers of Oxidative Stress and Inflammation Among PLWH

Janet Diaz-Martinez

Program: Ph.D. in Dietetics and Nutrition

Title: Novel Marker of Inflammation and its Association with Dietary Intake and Nutritional Status in Hemodialysis Patients

Mitra Naseh

Program: Ph.D. in Social Welfare

Title: Assessing Refugee Poverty Using Capabilities versus Commodities

Olatokunbo Osibogun

Program: Ph.D. in Public Health – Epidemiology

Title: Poly-tobacco use among youth and adults in the United States

Daisy Ramirez-Ortiz

Program: Ph.D. in Public Health – Epidemiology

Title: PREDICTORS OF HIV TESTING AMONG LATINO YOUNG ADULTS

Alexander Rodichikin

Program: Ph.D. in Public Health – Environmental Health Sciences

Title: SLC39A14 knockout mice: a genetic model to understand manganese-induced neurotoxicology

Alicia Sneij

Program: Ph.D. in Dietetics and Nutrition

Title: The Effectiveness of a 6-Month Nutrition Intervention Targeting Prediabetes in Prediabetic People Living with HIV (PLWH)

Javier Tamargo

Program: Ph.D. in Dietetics and Nutrition

Title: Cocaethylene and Obesity in the Miami Adult Studies in HIV (MASH) Cohort

Michelle Thompson

Program: Ph.D. in Social Welfare

Title: Microaggressions and mosquitoes! They're everywhere! And they impact psychological well-being

Poster Session Presentations

Presenter: Rumi Agarwal, Ph.D. student in Public Health – Health Promotion and Disease Prevention

Title: *Validated tools measuring stress and anxiety in parents of children with intellectual and developmental disabilities: A systematic review*

Additional Authors: M. Sanchez, P. Madhivanan, S. Burke and E. Bastida

Poster Description: Parents of children with disabilities face higher levels of stress and anxiety compared to parents of children without disabilities. It is important for health care providers to screen parents for these mental health conditions using a questionnaire that identifies stress and anxiety levels accurately, to support life outcomes for both parents and their children. Preliminary results from this on-going systematic review indicate that one questionnaire titled The Parenting Stress Index–Short Form (PSI-SF) may be appropriate. However, further studies are necessary to ensure that the PSI-SF is, in fact, capturing stress and anxiety levels amongst these parents accurately and consistently.

Research Abstract: Background: Parents of children with disabilities report higher levels of stress and anxiety than those of neurotypical children. This can have adverse outcomes for families and their children with disabilities. Appropriate measures are therefore needed to identify the stressors experienced by these families. Method: The present study is an on-going systematic review that aims to identify the psychometric properties of stress and anxiety measures that have been validated with parents of children with intellectual and developmental (IDD) disabilities. A literature search is being conducted on four databases, Medline, EMBASE, PsychINFO and CINAHL. Presently, a search of Medline has been undertaken by one reviewer, using keyword combinations and limited to studies beginning in the 1950s. The final review will consist of a second independent reviewer, as well as a third reviewer to resolve discrepancies. A protocol following the Cochrane guidelines is utilized to reduce error and bias. Results: A search of Medline, identified a total of 516 articles. Thirty-nine articles met inclusion criteria. However, only four articles psychometrically assessed measures in this population. One investigation utilized the Questionnaire on Resources and Stress- Short Form (QRS-F) while the remaining three studies examined The Parenting Stress Index–Short Form (PSI-SF). The QRS-F was positively rated for internal consistency, construct validity and content validity. The PSI-SF had positive ratings for internal consistency and construct validity but varied psychometrically across studies in relation to content validity. Information related to criterion validity was not available for either instrument. Presently, the PSI-SF appears to be the only instrument sufficiently assessed for use in this population, although more psychometric properties need to be reported for complete evaluation. Conclusion: Currently, the psychometric properties in measures of stress and anxiety amongst parents of children with IDD have not been comprehensively assessed. Accurate screening and detection of stress and anxiety in this population has the potential to limit adverse outcomes for both parents and their children with IDD. As such, it is crucial that future research be directed towards the development of a psychometrically sound scale.

Presenter: Katherine Alonso, MS student in Dietetics and Nutrition

Title: *Use of Restaurant Nutrition Information and Hyperlipidemia Among U.S. Adults Based on NHANES 2013-2014 Data*

Additional Authors: Vanessa Martin, Cristina Palacios

Poster Description: Consumption of energy-dense meals from restaurants may increase the risk of cardiovascular disease. In the past 40 years, consumption of away-from-home meals has nearly doubled, and restaurants with >20 locations are now federally mandated to display nutrition information on their menus.

As Americans continue to consume a large number of their daily meals from restaurants, it is important to evaluate the association between the use of restaurant-provided nutrition information and health outcomes. No study has reported such an association in a representative sample of Americans.

Research Abstract: Objectives: To evaluate the association between the use of nutrition information in restaurants and cholesterol levels in adults. Methods: A cross-sectional analysis of NHANES 2013-2014 data was completed using responses to the question on the use of nutrition information in restaurants to make purchasing decisions. This was associated with the risk of high cholesterol (levels \geq 200 mg/dL) by using multiple logistic regression and adjusting for medical conditions, energy intake, and weight history. Results: A total of 1,238 adults (18-65y) responded to the question about viewing nutrition information in restaurants; 43% reported using this information to make purchasing decisions. However, using such information was not associated with a lower risk of high cholesterol (OR: 1.014, 95% CI: 0.797, 1.290). Similar results were seen in the adjusted model (OR: 0.924, 95% CI 0.719, 1.187). Conclusions: No significant associations were found between the use of nutrition information in restaurants to make purchasing decisions and a lower risk of high cholesterol. This could be explained by the possibility that individuals with high cholesterol are more aware of their eating patterns and use more than just nutrition information to make purchasing decisions to help lower their cholesterol. Longitudinal studies are needed to confirm these results.

Presenter: Cassandra Coriolan, Master of Public Health (MPH) student in Epidemiology

Title: *Interactions of Historical Trauma on Chronic Disease and Reproductive Cancers*

Additional Authors:

Poster Description: Meta-analysis of academic literature and experimental case studies that examine interactions of historical trauma (collective and individual) on reproductive cancers and chronic diseases in marginalized communities.

Research Abstract: Abstract Title: Interactions of historical trauma on chronic disease and reproductive cancers Florida International University Nataniela-Carmella Israel, MPH candidate Master of Public Health: Molecular Epidemiology Maternal and Child Health Bachelors: Latin American and Caribbean Studies Over 15 million Native Indigenous peoples and African Slaves were directly impacted by colonialism, genocide, forced displacement, and land inquisition in 1492, 1619 and onward. These historical narratives and atrocities have had large contemporary implications on identity formulation, mental health, and health outcomes in its populations. These implications have biological and socio-behavioral consequences that are chemically coded in the body at an epigenetic, and cellular level. Today, these populations are most likely to encounter or die from: economic poverty, incarceration/police brutality, institutional racism, environmental racism, cancer and maternal-related deaths. Upon completion of systemic review of research literature found in over 200 academic journals and public sources. Findings suggests that historical trauma, mental health, and race-induced stress found in these communities, deserve medical treatment and attention upon diagnosis of chronic diseases and cancers. Qualitative findings reveal new directions for innovative ethno-based medical practices, healing interventions, social and cultural competency training for health care providers, with social interventions to help mitigate perceived barriers for communities positioned at the margins of society. This research hopes to mature into quantitative prospective cohort studies and animal cancer models. In addition, it crosses multiple disciplines and populations, while poses a few major questions: 1. If genetic and cellular memories are passed down to future generations, would ancestral narratives of colonial trauma or race induced stress influence genomic responses and interactions with treatments, medicines, and healing? 2. If there is socio-cultural specific trauma present in the body, could it serve as effect modifiers in the prevalence and survival of disease, such as breast cancers or fibroids? 3. How could this revolutionize or change the way we treat chronic disease and heal emotional

trauma? 4. Does trauma in bodies within oppressed and marginalized communities impact the body's ability to heal? Keywords: Epigenetics, Native-Indigenous, Cellular Memory, Race, Intergenerational Trauma

Presenter: Sandra Kiplagat, Ph.D. student in Public Health – Epidemiology

Title: *HIV Knowledge, Attitudes and Beliefs among rural pregnant women in Rural Mysore, India*

Additional Authors: Makella Coudray, Karl Krupp, Vijaya Srinivas, Poornima Jayakrishna, Kavitha Ravi, Purnima Madhivanan

Poster Description: The poster will review HIV knowledge, attitudes and beliefs among pregnant women in rural Mysore District in India. This will examine current knowledge of HIV, and propose any recommendations on reducing the gaps in HIV knowledge in rural India.

Research Abstract: Background: According to the UNAIDS report in 2018, India is among the leading countries with the highest HIV epidemic, with approximately 2.1 million people living with HIV.

Understanding the knowledge, beliefs and misconceptions of HIV/AIDS is crucial in promoting HIV education and reducing stigma. Although HIV knowledge has expanded in recent decades, huge disparities currently exist in rural regions in India and there is limited research done in this community. This study examines the factors that influence the knowledge and attitudes of HIV/AIDS among pregnant women in rural Mysore, India.

Methods: A prospective cohort study was conducted between 2011 and 2014 among 1820 pregnant women. The women were provided an informed consent and answered an interviewer-administered questionnaire on HIV knowledge, perceptions, and disclosure status in the Kannada language. All the participants underwent routine antenatal care services and were followed up after delivery, at 6 months and 12 months after delivery.

Descriptive and chi-square analyses were computed using SPSS 23. Results: Of the 1820 women surveyed during study enrollment, the mean age of the study population was 21.2±3.2 years, the majority were Hindu (98.6%) and more than half (58.8%) had secondary education or higher. Almost two-thirds (64.0%) of the pregnant women reported that HIV/AIDS is transmitted from mother to baby through breastfeeding, 75.0% indicated HIV can be transmitted through sharing syringes or needles, and 73.1% through unprotected sexual intercourse. Nearly fifty percent (49.3%) of the women incorrectly indicated that mosquito bites can transmit HIV/AIDS. 78.2% of the women disagreed or strongly disagreed that during sexual intercourse that they are usually the person who suggested condom use. Increased awareness, knowledge and attitudes of HIV/AIDS was significantly associated with secondary education or higher ($p < 0.01$) and older age ($p < 0.01$). Conclusion: Findings demonstrate gaps in HIV knowledge among rural pregnant women in Mysore District, India. There is an urgent need to promote comprehensive HIV education among pregnant women in rural regions in India to minimize the incidence and prevalence of HIV/AIDS.

Presenter: Yanet Manresa, Master of Public Health (MPH) student in Epidemiology

Title: *Will providing patients with hand sanitizing wipes have a greater effect on hand hygiene practices than educating staff?*

Additional Authors:

Poster Description: Hand hygiene is a valuable tool in preventing the spread of bacteria responsible for many Hospital-associated infections. Patient surveys administered at two hospitals within the same health system showed a need for increased patient hand hygiene (PHH) opportunities and education. The purpose of this study was to compare the effects of providing hand sanitizing wipes to patients and educating staff on PHH practices. The results were measured by distributing surveys following the intervention. Data analysis showed that patient PHH opportunities did not improve significantly at either facility.

Research Abstract: Objective: The aim of this study was to compare what effects providing hand sanitizing wipes to patients and educating staff would have on PHH practice. Background: Hand hygiene is a useful tool in preventing the spread of bacteria that can cause many healthcare associated infections (HAI). Lack of awareness and mobility constraints can be obstacles for patient hand hygiene (PHH) in hospital settings. Greater involvement from hospital staff may help to increase PHH levels. Surveys given at two hospitals within the same health system showed a need for increased PHH opportunities and education. Method: A quasi-experimental study was performed to increase PHH by either educating staff or providing patients with hand sanitizing wipes in order to facilitate hygiene. Patients at one facility were provided with hand sanitizing wipes on a daily basis by the nursing staff. The results were measured after six months. This intervention was not implemented at the second facility, instead the staff was educated on the importance of PHH using the data gathered during the baseline assessment. The effects were measured after one year. PHH levels were self-reported and gauged using patient surveys. The data was analyzed by X2 test. Result: PHH opportunities did not improve significantly at either facility. Staff education alone led to a significant increase in the number of patients who reported being reminded to practice PHH before meals ($P=.035$). Conversely, the introduction of staff-distributed sanitizing hand wipes led to a significant decrease in the number of patients who reported being reminded to practice PHH before or after having visitors ($P=.038$). Conclusion: PHH opportunities did not increase as a result of staff education or hand wipes distribution. These results may be due to the study's small sample size.

Presenter: Juan Morales, Ph.D. student in Public Health – Environmental Toxicology

Title: *Transcriptomic Predictive Benchmarks for Testing Ecosystem Recovery and Remediation Success of Heavy Metals*

Additional Authors: L. Lagos, Changwon, Yoo, Alok Deoraj, Deodutta. Roy

Poster Description: Numerical modeling analysis of Tims Branch Watershed involving the contaminant and transport of heavy metals and radionuclides in U.S.DOE Savannah River Site

Research Abstract: Heavy metals are a prominent environmental concern due to the association between the rate of disease primarily from environmental exposures and occupational hazards. Heavy metals present in sediment or water can easily enter into food chain and also cause risk for humans, animals, plants and ecosystem. Metatranscriptomics has been used to assess microbial community activities and functions, as well as seawater communities. Here we propose to develop transcriptomic predictive benchmarks for ecosystem recovery and remediation success of heavy metals in river water as well as discovery of novel genes and regulatory elements. We propose to applying transcriptomic technology to test heavy metal remediation because of its sensitivity and allows for comprehensive examination of genomic and epigenomic molecular changes that hyperaccumulation of low levels of Zn, Cd and Ni may produce and not detectable by monitoring and surveillance of water surface or sediment levels of these chemicals. Hazard identification based on experimental and ecologic studies suggest that exposure to metalloestrogens—Cd, As and Ni produced health deficits in aquatic organisms, including in bottom- and surface dweller different species of fish. Gene set pathway enrichment analysis showed metalloestrogens—Cd, As and Ni responsive estrogen and NRF1 common target genes associated with various disease. GO annotations of E2 and NRF1 enrichment network genes of arsenic associated with biological process pathways involving multiple E2 and NRF1 genes. In summary, transcriptomic dose-response analysis for mode of action and risk assessment revealed that nuclear respiratory factor (NRF1) regulatory genomic and epigenomic networks were highly sensitive to environmental heavy metal stressors. Further analysis of our metatranscriptomic findings of heavy metals should provide insight into health of fish community for ecosystem recovery and remediation success of heavy metals

Presenter: Mitra Naseh, Ph.D. student in Social Welfare

Title: *Cultural Adaptations in Psychosocial Interventions for Post-Traumatic Stress Disorder among Refugees: A Systematic Review*

Additional Authors: Miriam Potocky, Paul H. Stuart, Sara Pezeshk

Poster Description: This poster is based on a peer-reviewed journal paper published in the Journal of International Humanitarian Action. The poster highlights the value of access to shelter as a pull factor in ending forced displacement by comparing Afghan refugees' housing situation in Iran with returnees' access to shelter in Afghanistan.

Research Abstract: Background: One in every nine refugees worldwide is from Afghanistan, and Iran is one of main host countries for these refugees. Close to 40 years of hosting Afghan refugees have depleted resources in Iran and resulted in promoting and sometimes forcing repatriation. Repatriation of Afghan refugees from Iran to Afghanistan has been long facilitated by humanitarian organizations with the premise that it will end prolonged displacement. However, lack of minimum standards of living, among other factors such as private covered living area, can make repatriation far from a durable solution. Objective: This study aims to highlight the value of access to shelter as a pull factor in ending forced displacement, by comparing Afghan refugees' housing situation in Iran with returnees' access to shelter in Afghanistan. Methods: This study is based on two information sources: (1) a descriptive analysis of cross-sectional data collected from Afghan refugees in Iran in 2011 (Ahmadinejad 2011), and (2) a systematic literature review in English and Farsi in regard to the housing situation of Afghan refugees in Iran and returnees in Afghanistan. Five indicators were defined in this study to assess housing situations based on the Sphere Project (2011) handbook (1) minimum covered area of 3.5 m² per person; (2) households' access to a private covered cooking area (kitchen); (3) households' access to a private latrine; (4) households' access to electricity; and (5) households' access to piped water. Results: Findings suggest that over 80% of surveyed Afghans in our study had access to private durable covered living space with minimum standards of living in Iran. The documents retrieved in our systematic literature review show that access to similar standards was between 30 and 73% among Afghan returnees. Conclusion: Results of our analysis call for reevaluation of repatriation as a durable solution for Afghan displacement in the absence of decent shelter conditions and highlight a need for incorporation of shelter assistance programs into repatriation plans.

Presenter: Matthew Neal, Ph.D., Post

Title: *CSF1R is induced in Parkinson's disease and pharmacological inhibition with GW2580 protects in an MPTP model of PD*

Additional Authors: Alexa Boyle, Gelareh Alam, Eric Beier, Sheila Fleming, Long-jun Wu, Jason R. Richardson

Research Abstract: Increased neuroinflammation contributes to the pathogenesis, and potentially the progression, of neurodegenerative diseases such as Parkinson's disease (PD). Activation of macrophage colony stimulating factor 1 receptor (CSF1R) by its cognate ligands macrophage colony-stimulating factor (CSF-1) and Interleukin-34, is known to induce microglial proliferation and alter microglial phenotype. Here, we sought to characterize the role of CSF1R in postmortem PD brains and animal models of PD. Utilizing datamining techniques, we uncovered microarray data demonstrating increased CSF1R gene expression, along with significantly increased gene expression of the cognate ligand CSF-1, in the brain of PD patients compared to controls. In two mouse models of PD, CSF1R gene expression and protein levels were significantly increased in the nigrostriatal regions following acute MPTP (4x12 mg/kg) or subchronic LPS (once daily 1 mg/kg for four consecutive days) treatment. To examine the effect of CSF1R inhibition in an

animal model of PD, we used the selective pharmacological CSF1R inhibitor, GW2580. Following the acute MPTP injections, GW2580 treatment significantly attenuated the MPTP-induced CSF1R activation and Iba1-positive cell proliferation without reducing the basal Iba1-positive, GFAP-positive cell numbers, or astrocyte reactivity in the substantia nigra. Similarly, GW2580 treatment significantly reduced the gene expression of pro-inflammatory factors, without altering anti-inflammatory mediators. The GW2580-mediated reduction of Iba1-positive cell proliferation and tissue inflammation led to significant attenuation of the MPTP-induced loss of tyrosinehydroxylase (TH)-positive and nissl-positive neurons in the substantia nigra. Similarly, GW2580 treatment significantly attenuated MPTP-induced motor behavioral deficits. Taken together, these data suggest that CSF1R signaling is potentially involved in the progression of PD, and selective inhibition of this receptor can attenuate MPTP-mediated microglial proliferation and neuroinflammatory response, along with protecting against dopaminergic neurotoxicity and motor behavioral deficits. Therefore, CSF1R inhibition represents a novel target for neuroprotection in PD. Supported in part by R01ES021800 and the Michael J Fox Foundation.

Presenter: Etinosa Oghogho, Ph.D. student in Public Health – Health Promotion and Disease Prevention

Title: *Intentional firearm mortality in children and adolescents, United States, 1999-2016: Impact of state legislation, and access to mental health and specialized pediatric trauma care*

Additional Authors: Consuelo M. Beck-Sague

Poster Description: Intentional firearm death (death due to suicide or homicide using a firearm), is an important cause of death in US youth. Firearms were the leading cause of homicide and closely followed hanging as the leading cause of suicide in US 10-19-year-olds. States with less strict firearm laws tend to have higher intentional firearm death rates, but more access to mental health treatment or specialized trauma care has been proposed as a less controversial way to reduce firearm deaths. We compared roles of firearm legislation restrictiveness and mental health and pediatric trauma care access in reducing intentional firearm death in youth.

Research Abstract: Objectives: To assess and compare the roles of firearm legislation restrictiveness, and access to mental health and specialized pediatric trauma care in reducing intentional firearm mortality (IFM) (suicides and homicides due to firearms) in US youth. Background: IFM is an important cause of death in US youth; IFM was the leading cause of homicide and closely followed suffocation as the leading cause of suicide in 10-19-year-olds. Restrictive firearm legislation has been linked to lower risk of FM, but recently, increasing access to mental health or trauma care have been proposed as less controversial options. Methods: State IFM rates from the CDC Underlying Cause of Death Mortality Statistics (1999-2016) for 0-19-year-olds were compared by each state's firearm legislation restrictiveness, proportion of adolescents with depression who were untreated, and number of verified pediatric trauma centers (VPTC) per 100,000 persons aged <20 years (youth), obtained from the Giffords Law Center, Mental Health America 2017 and American College of Surgeons, respectively. Linear regression and bivariate analyses were used to assess associations and logistic regression and stratified analyses, to control for confounding and effect modification. Results/Observation: From 1999-2016, 47,993 deaths in US youth were attributed to firearm injuries; 93% were IFM (63% homicides, 30% suicides). State IFM rates ranged from .45 (Hawaii) to 7.58 (Alaska) per 100,000 youth. Most states [28 (56%)] had extremely permissive legislation. IFM varied inversely with increasing legislation restrictiveness (Slope= -0.160, P= 0.003) and prevalence of VPTC (Slope=-6.65, P=.70), but rose with increasing proportion of untreated adolescent depression (Slope=0.042, P=0.05). In logistic regression, extremely permissive state firearm legislation (adjusted odds ratio [aOR]=4.86; P= 0.049), over 66% of depressed adolescents untreated (aOR=4.53; P=0.042), and less than .06 VPTC per million youth (aOR=5.24;

P=0.027) were independently associated with high (>75th percentile) IFM rates. When stratified by permissive vs. stricter legislation, effects of untreated depression or VPTC prevalence were confined to states with permissive legislation. Conclusions: Improved access to pediatric trauma and mental health care can contribute to IFM reduction, primarily in states with permissive firearm legislation. However, restrictive firearm legislation appears to be the most efficient strategy to reduce IFM.

Presenter: Rebecca Pazos, MS student in Dietetics and Nutrition

Title: *Urinary Paraben Concentrations and Its Association with Serum Triglyceride Concentrations in 2013-2014 NHANES Participants*

Additional Authors: Cristina Palacios; Adriana Campa

Poster Description: The purpose of this study was to determine if serum triglycerides concentrations are impacted by the various parabens (preservatives) that are found in foodstuff, pharmaceuticals and personal care products. Currently, it is not well understood if parabens can have a negative impact on the human body because the research is mixed. The study found that some specific parabens are associated with lower circulating triglycerides.

Research Abstract: Objectives: Alkyl esters of para-hydroxybenzoic acid, colloquially known as parabens, are types of preservatives found in multiple foodstuffs, pharmaceuticals and personal care products to which Americans are exposed daily. It is unclear if parabens exhibit carcinogenic or endocrine-disrupting properties. Methylparaben and propylparaben, two of the parabens most commonly found in foods, may interact with triglycerides in adipose tissue and impact lipid metabolism. Due to the potential for adverse impact, it is imperative to study how parabens interact with lipids in humans. Our objective was to evaluate the association between urinary parabens and serum triglyceride concentrations. Methods: This cross-sectional study used data from adults 20 years and older from the 2013-2014 NHANES. Triglyceride levels were associated with urinary paraben concentrations (methyl and propyl) using a Hierarchical Multiple Regression, adjusting for ethnicity/race, gender, waist circumference, BMI and age. Results: A total of 794 participants were included in the analyses; their mean age was 49.7 years, 52.4% were female, 43.07% were white, and 20.2% were black. Triglycerides were inversely associated with methylparaben (CI 95% -.054, -.004, β =-0.82, P= 0.022) and propylparaben (CI 95% -.04, -.003, β =-0.81, P=0.026). When adjusting for age, gender, race/ethnicity, BMI and waist circumference, the model remained significant for methylparaben (P< 0.05, adjusted R² =.140), and propylparaben (P< 0.05, adjusted R² =.140). Conclusions: Despite the potential detrimental effects of parabens on triglycerides, our results suggest that urinary excretion of methylparaben and propylparaben are associated with lower circulating triglycerides. Further research is needed to confirm the mechanisms and health impact of this relationship.

Presenter: Lukkamol Prapkee, Ph.D. student in Dietetics and Nutrition

Title: *Development and Pilot Testing of the Snackability Smartphone Application to Identify Healthy and Unhealthy Snacks*

Additional Authors: Cristina Palacios, Masoud Sadjadi, Fatma Huffman.

Poster Description: This study was to develop the Snackability smartphone application. The app helps identify if a snack is healthy or not based on how compliant it is to the USDA guideline for healthy snacks. Then, pilot study was conducted to evaluate the feasibility, usability, satisfaction, acceptability and using focus groups to explore participants' experiences and feedbacks with the app. The result was used to improve the second version of the app.

Research Abstract: Snacks contribute to the diet quality in youth, which is often poor. Currently, there is a USDA guideline for healthy snacks which is lost in translation when youth are faced with the decision to choose

a snack. This could be done using a smartphone application (app) to help identify healthy and unhealthy snacks. Objectives: This study aimed to develop a user-friendly app to provide a simple output by assigning a score and feedback based on how compliant the snack is to the USDA guideline for healthy snacks and to evaluate it. Methods: “Snackability” app was developed following the ADDIE (analysis, design, development, implementation, and evaluation) model. The app was pilot tested with 12 non-nutrition college age students (18-25 years) using a mixed method approach. Participants were instructed to use the app for 2 weeks. After this time, we evaluated the app in 2 ways: (1) using a questionnaire to evaluate if the feasibility, usability, satisfaction, and acceptability was $\geq 50\%$; and (2) using focus groups to explore participants’ experiences and feedbacks with the app, which were audio recorded, transcribed, and coded to generate themes by NVivo software. Results: The developed app had a simple score (0–10) and feedback. The higher the score, the healthier the snack is. The app feasibility and usability was significantly greater than 50% ($p < 0.05$). Participants reported that the app was a good way to help individuals select and consume healthy snacks and the feature that they liked most about the app was the output and creating awareness of snack intake. However, they liked the least the search page. To improve the app, participants suggested to include specific scores and feedback, weekly average score report and consumed history tab for tracking progress, gamification, notifications, and the option to add snacks not found in the app. These suggestions were incorporated in the second version of the app. Conclusions: “Snackability” app translates the USDA guideline into a simple score to help identify healthy snacks. We showed that it was feasible and usable, and several features were improved as suggested by participants.

Presenter: Michelle Ann Rhoden, Ph.D. student in Social Welfare

Title: *Community Reintegration and Health Outcomes of Youth Offenders: Research, Policy & Service Programs*

Additional Authors: Hui Huang, Mark Macgowan

Poster Description: This study examines well-known longitudinal studies, major government policies and service programs addressing the health needs of youth reintegrating into the community after confinement. The results indicated that most youth leaving confinement have a mental health diagnosis and their sexual risk behaviors increase. Additionally, 20% of federal funding is awarded to address the community reintegration of youth. In this study, all the juvenile justice agencies provided special discharge planning to facilitate the continuity of care and healthcare access to youth compared to 20% of Medicaid agencies. None of the youth reentry service programs examined significantly reduced reported health problems.

Research Abstract: About 95% of offenders leave confinement to be reintegrated into the community (James, 2015), many experience mental and physical health and substance use problems. This study is a review of current research, policy and service programs on the health needs and outcomes of the youth offender reentry population. The authors reviewed two current well-known longitudinal studies: Northwestern Juvenile Project and the Pathways to Desistance study. The authors also reviewed federal and state policies which facilitate healthcare services to offenders: The Second Chance Act (SCA) and Medicaid, Children’s Health Insurance Program (CHIP), and Affordable Care Act (ACA). Finally, the author examined evaluative studies of high rigor service programs published between 1980-2015 and included in the ‘What Works in Reentry Clearinghouse.’ Overall, 60% of youth leaving confinement met criteria for one or more mental health diagnosis (excluding conduct disorder) and 40% for a substance use diagnosis. After discharge, sexual risk behaviors increased, meanwhile, mental health and substance-related problems decreased. Up to 2015, the government awarded \$500 million to SCA grantees in 49 states but only 20% funded juvenile services. A 2008-2009 survey, conducted among 26 Medicaid and 31 juvenile justice agencies located in 43 states, reported that all the juvenile justice agencies compared to 20% of the Medicaid agencies conducted special discharge planning for youth offenders transitioning into the community. The clearinghouse included only five mental and physical health and nine

substance use high rigor evaluative studies. Two of the mental and physical health programs and three of the substance use programs reported beneficial significant results in reducing recidivism and/or health problems. The service programs were: Connections Program, Mental Health Services Continuum Program, Amity In-Prison Therapeutic Community, CREST and Challenge to Change Therapeutic Community. None of the youth reentry program produced significant results. The research on the health needs of youth reentry population is limited to a few studies. Additionally, there is a need for better coordination of services between Medicaid and juvenile justice agencies to facilitate healthcare access. Also, there is a need for effective youth reentry programs to address health outcomes.

Presenter: Colby Teeman, Ph.D. student in Dietetics and Nutrition

Title: *Metabolic Syndrome (MetS) as a Predictor of Fatty Liver in HIV infected adults from the Miami Adult Studies on HIV (MASH) cohort*

Additional Authors: Yongjun Huang, Qingyun Liu, Jacqueline S. Hernandez, Javier A. Tamargo, Jupshy Jasmin, Leslie Seminario, Priscilla Clayton, Gustavo Zarini, Sabrina S. Martinez, Adriana Campa, Joseph Piperato, Marianna K. Baum

Poster Description: The five criteria that are used to diagnose metabolic syndrome also may play a role in the development of fatty liver disease. When studying the relationship between HIV and fatty liver, it is important to know the potential contribution that components of metabolic syndrome may make to fatty liver as well.

Research Abstract: Objectives: One of the major comorbidities among people living with HIV (PLWH) is liver disease. MetS is common in this population and may also play a role in the development of liver disease. In order to better understand the mechanisms of liver disease in PLWH, it is important to investigate the relationship between components of MetS and the risk of fatty liver, an early precursor to liver disease. The objective of this study was to determine if the 5 criteria used to diagnose MetS contribute to liver steatosis. Methods Cross-sectional analyses of data from the MASH cohort were analyzed. Waist circumference (WC) and blood pressure (BP) were measured by a research nurse. Serum triglycerides (TRG), glucose (GLU), and HDL were determined in fasting by LabCorp. Liver fat% was estimated with proton density fat fraction using Magnetic Resonance Elastography conducted on a 3T Siemens MAGNETOM Prisma MRI. Liver fat% $\geq 5\%$ was defined as stage 1 steatosis. Components of MetS were taken from the NCEP ATP III definition of MetS. Spearman correlations and logistic regression were used for analyses. Results A total of 324 PLWH aged 53.5 ± 7.5 years were included. Liver fat% was correlated with WC ($r=0.394, P<0.001$), TRG ($r=0.332, P<0.001$), GLU ($r=0.358, P<0.001$), and systolic BP ($r=0.183, P=0.011$), inversely correlated with HDL ($r=-0.236, P=0.001$), and trended toward significance with diastolic BP ($r=0.133, P=0.065$). Participants with stage 1 steatosis had a larger WC (41.02 ± 5.3 vs $36.95 \pm 5.5, P=0.001$), higher TRG ($210.3 \text{ mg/dL} \pm 173.9$ vs $121.3 \pm 67.9, P=0.002$), and higher GLU ($126.1 \text{ mg/dL} \pm 77.7$ vs $93.92 \pm 50.8, P=0.001$) than those without steatosis. No significant difference was found for HDL cholesterol, SBP, or DBP. A logistic regression model that included all 5 MetS criteria and was controlled for age, gender, and alcohol AUDIT score ≥ 8 found that WC (OR 1.11, 95% CI 1.01-1.23, $P=0.030$), TRG (OR 1.01, 95% CI 1.00-1.01, $P=0.040$), and GLU (OR 1.01, 95% CI 1.00-1.03, $P=0.033$) are significant predictors of stage 1 steatosis. Conclusions WC, TRG, and GLU, three of the 5 criteria for diagnosing MetS were significant predictors of stage 1 steatosis in PLWH. Future studies investigating the risk of liver disease progression in PLWH need to account for these confounding factors as they explore HIV specific mechanisms for liver disease.