

The purpose of the National Conference poster competition is to stimulate research by medical students and family medicine residents, to provide a venue to share innovative and effective educational programs, and to showcase unique community projects. This year's 24 presenters offer valuable information in the categories of clinical inquiry, community projects, educational programs, and research.

### **Clinical Inquiry**

#### **CI-1 Myxedema Coma: The Other Low T**

*Andrea Heyn, MD*

*University of Arizona Family Medicine Residency Program*

Myxedema coma is a severe form of decompensated hypothyroidism with a high mortality rate, ranging from 30-60 percent. However, it is rarely seen clinically due to the availability of Levothyroxine replacement. The term myxedema coma is misleading as a patient need not be in an actual coma, but simply have any degree of altered mental status in the setting of known or suspected hypothyroidism. The high mortality of this disease is multifactorial and assessment tools can help predict poor outcomes. The sequential organ failure assessment (SOFA) is one assessment tool and in one particular study was shown to be superior to the APACHE II and GCS scoring tools. Scores of six or above at presentation and six or greater at three days predicts a worse outcome. Unfortunately, there is no literature to guide treatment using thyroid replacement hormone for varying levels of disease acuity. This abstract reviews a case of myxedema coma resulting in death of the patient, current treatment recommendations, and highlights less common triggers of myxedema coma. This serves as a reminder that myxedema coma continues to be deadly despite its rarity in clinical practice.

#### **CI-2 Laparoscopic Salpingectomy of Spontaneous Bilateral Tubal Ectopic Pregnancies**

*Ibukunoluwa Pickens, DO*

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Abstract Spontaneous bilateral ectopic pregnancies are a rare incidence. Estimated incidence is 1 in 725 to 1580 of all ectopic corresponding to 1 per 200,000 live births<sup>1</sup>. Most bilateral ectopic pregnancy are usually diagnosed intraoperative therefore high clinical suspicion should be present with amenorrheic patients who presents with elevated B-HCG and absent intrauterine sac. Risk factor for ectopic pregnancy include prior ectopic pregnancy, tubal pathology or surgery, in-utero DES exposure, genital infections, IUD, infertility, multiple sexual partners, smoking, in vitro fertilization, vaginal douching, younger age of first sexual encounter<sup>2</sup>. This case report details a 30yr old African American female with intraoperative diagnoses of spontaneous bilateral tubal ectopic pregnancies. Management option for ectopic pregnancies include medical management with methotrexate in hemodynamically stable and reliable patient who's Beta- HCG is < 5000 and no fetal cardiac activity, salpingostomy to remove small intact pregnancy, and salpingectomy to remove hemorrhagic and/or pathologic tubal ectopic<sup>5</sup>.

### **CI-3 Misdiagnosis of Chronic Leg Pain: A Case Report of Popliteal Artery Entrapment Syndrome**

*Jordan Ryan, MD, and Alexander Sparkman-Royo, MD  
Saint Louis University Belleville Family Medicine Residency*

Popliteal Artery Entrapment Syndrome (PAES) is an uncommon but important cause of chronic exertional leg pain. Despite its rarity, PAES is important to consider because in contrast to other common causes of chronic exertional leg pain in active adults, it is initially managed operatively and can lead to permanent arterial damage if left untreated. The differential diagnosis of chronic exertional leg pain in active adults is broad, but the most common diagnoses encountered by family physicians are medial tibial stress syndrome, stress fractures, chronic exertional compartment syndrome (CECS), and nerve entrapment. We present the case of a 26-year-old active duty male with persistent exertional leg pain for 4 years that was found to be multifactorial. When the patient presented initially only a limited differential of MTSS and stress fracture was considered. The patient was found to have radiographic evidence of stress fracture, but despite routine conservative management continued to have pain for years. As his symptoms worsened he developed claudication and paresthesias with walking and driving. A sports medicine physician was consulted and differential was broadened to include CECS and PAES. MRI/MRA confirmed PAES and he was referred to vascular surgery for popliteal artery release.

### **CI-4 Five Month Old with Lethargy and Irritability**

*Catherine Twimasi, MD, and Gretel Spitzer, MD  
Lynchburg Family Medicine Residency*

Botulism is a rare but serious paralytic illness characterized by acute onset of bilateral cranial nerve palsies, oculobulbar weakness and descending symmetric flaccid paralysis in the absence of fever. Diagnosis is clinical with a high instance of misdiagnosis thus delaying treatment and laboratory confirmation. In the US there is an average of 145 cases per year. Infant botulism making up 65% of the total cases. The infant ingests the spores, leading to intestinal colonization. Disease manifestations can occur anywhere from 3-30 days. This case represents the events of a 5-month old who presented with non-specific findings and was later found to have infant botulism. Due to worsening physical exam findings and non-response to treatment the child was transferred to a tertiary care center. A total of 12 days was spent in the PICU, her stool studies eventually came back positive for Botulinum B toxin.

### **CI-5 When Grief Gets Complicated: An Introduction to Diagnosis and Management of Complicated Grief**

*Arielle Villanueva  
Texas A&M University Health Science Center College of Medicine*

Complicated grief (CG) affects about 10% of those who experience the loss of a loved one. However, diagnosing and treating this condition has been difficult because there are no definite criteria for it and because it has symptoms that overlap with normal grief and major depression. Some risk factors have been identified to aid the primary care physician in anticipating and diagnosing patients appropriately. Treatments consist of psychotherapy and sometimes pharmacotherapy. With a scarcity of mental health specialists, it is increasingly up to the primary care physician to diagnose and manage patients with CG. The corresponding case describes a 68-year-old female who presented with depressive symptoms following the death of her husband of 35 years. She had pervasive symptoms of guilt and regret as well as anhedonia, decreased appetite, insomnia, fatigue, and passive suicidal ideation. She was diagnosed with Major Depressive Disorder and Complicated Bereavement. Treatment for these conditions included psychotherapy and various pharmacotherapeutic drugs with eventual improvement of symptoms after nine months.

## **Community Project**

### **CP-1 Assessment of Patient Transportation as a Determinant of Appointment Attendance at the Susquehanna Community Health and Dental Center**

*Katherine Chung, Brianne Handel, Leanne Woiewodski, and Chloe Swanger  
Geisinger Commonwealth School of Medicine*

Forty-five million Americans either live in underserved areas or are uninsured and, thus, have poor access to healthcare in their communities. This study focuses on transportation in the uninsured population of Williamsport, PA at the Susquehanna Community Health and Dental Center. A total of 162 patients were interviewed and survey data were collected; these include information on mode of transportation, access to a personal vehicle, distance travel from home to the clinic, and the difficulty in coming to the health center. We found that the mode of transportation played a key role in determining the likelihood of missing an appointment due to transportation problem. 71.3% of patients who use the community-based transportation, STEP, has had a missed appointment due to transportation issue, yielding the highest rate of missed appointment in any mode of transportation. During interviews with survey respondents and Williamsport community members, the unreliability and inconsistent pick-up times of STEP was mentioned several times. This study concluded that despite continuing efforts to provide public transportation for the underserved patients, the need to implement a new system that can be personalized and efficient is a major milestone in ensuring their health and wellbeing.

### **CP-2 The Patient & Family Advisory Council (PFAC): A Training Model for Meaningful Collaboration in a Residency Program**

*Kara Ciani, MD, Kirsten Koch, MD, and Michael Putnam, MD  
The Christ Hospital/University of Cincinnati Family Medicine Residency*

A Patient and Family Advisory Council (PFAC) is a partnership between patients, family members, staff and providers with the aim to elicit patient voice and improve the patient experience. We created a PFAC at the residency-based Family Medicine Center (FMC) to identify areas for quality improvement (QI), launch collaborative projects within the FMC, and evaluate project impact on care delivery. In addition, the PFAC acted as a tool to affirm resident beliefs about the centrality of patient- and family-centered care in the future of health care. To date, this 18-member council, consisting of eight patients, four staff members, four residents and two physicians, has held eight meetings with an average of 14 members. Data was collected through brainstorming, written surveys from PFAC and 82 clinic patients, and Walk-About participation. Two broad areas of quality improvement were identified: waiting room and exam room experience. Within each area, the PFAC has identified specific priorities for improvement. Residents who are council members act as liaisons to the FMC to lead QI projects with continuous feedback from the PFAC. Project completion is anticipated in June 2017. Our PFAC serves as a training model for residents to learn about meaningful collaboration in future practice.

**CP-3 Improving Pneumococcal Polysaccharide Vaccination Rates in Immunocompetent Adults**

*Rachel Gallen, DO, Sang Dao, DO, and Nonna Ilyabayeva, MD  
Gwinnett Medical Center Family Medicine Residency Program*

ACIP pneumococcal vaccination guidelines changed in November 2014 with a new recommendation to give 1 dose of the polysaccharide vaccine for patients ages 19 to 64 with COPD, asthma, smoking history, coronary artery disease, congestive heart failure, alcoholism, cirrhosis and type 2 diabetes. A baseline assessment of our PPSV23 adherence was determined by chart review and was found to be 3% in our patient population. In order to improve vaccine compliance, we implemented three sequential strategies; a didactic presentation which reinforced the new guidelines, dispersal of vaccine reference pocket cards among physicians and utilization of a reference poster placed on the bulletin board in the residents chart room. Following the implementation, a 3 month chart review was performed for data collection using our clinic electronic health record (EHR) charting system. The statistical analysis showed improvement in our vaccine compliance rates from 3% pre-intervention to 38% postintervention. This shows that the reinforcement of new guidelines and provision of visual reference guides is of great benefit in patient care. This intervention could be extended to other types of vaccinations such as pediatric immunizations.

**CP-4 Rural Healthcare Delivery in Haiti: Retrospective Analysis of over 1300 Patient Charts from an Isolated Rural Population**

*Kyle Kondrat and Jeremy Weleff  
Michigan State University College of Osteopathic Medicine*

The Haiti and African Relief Team (HART) focused on establishing short term medical care in the rural community of Morne L'Hopital. This study retrospectively analyzed 1,318 patient charts collected over one year to this isolated rural population. The purpose was to assess the current health status and risk factors in this unstudied population to establish baseline data for future interventions and surveillance. Amongst the 828 adult patients, the most common specific diagnoses in the adult population were back pain (29%), vulvovaginitis (25%), and GERD (23%). Hypertension was diagnosed and treated in 14% of adult patients although approximately 31% were hypertensive at their clinic visit. Older age category ( $p<0.000$ ) and type of chief complaint ( $p<0.000$ ) were found to be statistically significant for predicting whether an adult was hypertensive, while gender ( $p=0.213$ ) was not. Of the adults diagnosed with GERD, only 19.7% were taking omeprazole or other acid-reducing agents. Of the 485 pediatric charts that were reviewed, the most common presenting complaints were due to pain (44%), followed by visual or hearing related complaints (32%). Due to the limited amount of data available on the health status of rural Haitians, this data helps to better understand the healthcare needs in this population.

**CP-5 Food Insecurity: Identification of an Effective Screening Process**

*Oluwaseun Acquah, MD, Alice Macdonald, MBChB, Judith Boylan, MD, and Ashley Estrem, DO  
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The objective of this study was to identify an effective screening process for food insecurity in a clinic setting. Food insecurity is defined as “limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways”. 13% of households nationwide are food insecure, and that number rises to 16.6% of households with children. Screening for food insecurity is currently not standard practice despite being a prevalent social determinant of health. The study was conducted using a 2 question questionnaire with 97% sensitivity and 83% specificity for food insecurity. Five different ways of implementing the screening questionnaire were tested. Two strategies were physician conducted and three were patient conducted during the check in process. Measures included the number of patients screened and the number of positive screens. For physician conducted screening we also looked at number of opportunities to screen. Each strategy was carried out for 4-6 weeks. Physician conducted screening was carried out during 51 visits; patient conducted screening was completed on 1234 visits. The patient conducted screening rates (25%, 14.7%, and 14.1%) were higher than the physician conducted rates. (0.010% and 0.013%) The most effective screening process was patient conducted during check in. Patients may be embarrassed at disclosing food insecurity to a physician. Also there may be physician discomfort at asking about adverse social circumstances.

**CP-6 Hand in Paw: Incorporating Emotional Support Animals to Promote Well-Being and Maintain Residential Stability for Formerly Homeless Individuals Transitioning Into Permanent Housing**

*Alice H. Tin, MPH  
The Warren Alpert Medical School of Brown University*

Maintaining housing stability can be challenging for homeless individuals. Isolation and purposelessness can complicate the transition from life on the street to permanent housing. The Hand in Paw (HIP) program matches formerly homeless individuals with animals from local shelters to ease this transition. Emotional support animals (ESA) provide companionship, infuse structure to daily life and foster responsibility through caring for another living being. Validated surveys (WHO Quality of Life–BREF and the Beck’s Depression Index) are administered as pre and post surveys to assess the impact of the companion animal on program participants’ emotional well-being and quality of life. Volunteer student teams meet regularly with clients throughout the duration of the program to discuss the effects of their ESA on their transition to permanent housing. Preliminary qualitative data supports that clients experience many benefits from living with an emotional support animal.

## **Educational Program**

### **EP-1 Integrating Sexual and Gender Minority Health into the Medical School Curriculum: A Student-Led Grassroots Approach to Curricular Change**

*Naomi Gorfinkle, Neha Bakhai, and Julia Ramos  
Johns Hopkins University School of Medicine*

Many medical schools lack comprehensive curricula that address the unique health needs of sexual and gender minorities (SGM). Motivated to impact change, we utilized existing guidelines and resources to develop a student-faculty coalition in order to integrate a longitudinal SGM curricula into our medical school. Our team developed five curricular objectives and identified optimal placement for SGM health content. We directed change from the ground-up, partnering with individual faculty members to create a four-year curriculum with progressive reinforcement and purposeful redundancy. We formed sustainable course-specific working groups in which we harnessed the unique expertise of students and faculty, and identified mutually beneficial roles for each team member. To date, we have introduced seven curricular interventions using a variety of learning modalities. Our student-faculty coalition created immediate and meaningful curriculum change throughout all four years of medical school, established supportive student-faculty partnerships, and provided an avenue for students to engage passionately in medical education. Through this initiative, we gained valuable insight and headway in influencing SGM patient care at our institution. Moving forward, we hope to disseminate this strategy as a template for developing comprehensive curricula for SGM and other marginalized communities.

### **EP-2 Evaluating the Use of Standardized Patients in Teaching Informed Consent to Fourth-Year Medical Students**

*Lauren Groskaufmanis and Madelyn Stevens  
Duke University School of Medicine*

Informed consent is a critical component of the doctor-patient relationship. Yet, formal training in obtaining informed consent varies, and many residents express a lack of confidence in the skill. All fourth-year students at Duke University School of Medicine receive training in obtaining informed consent as part of a mandatory transition-to-residency course. Using the flipped classroom model, students review the components of high-quality informed consent. Students select and research a medical procedure they anticipate performing in intern year and create a profile of a typical patient requiring the procedure. Students obtain informed consent from a standardized patient (SP) portraying the profiled patient, highlighting improvised self-driven learning. Students and a faculty coach review the videotaped SP encounter and evaluate the encounter using a standardized checklist. Faculty also provide narrative feedback. This activity was successful in producing student proficiency - faculty deemed 95% of students entrustable. Student self-evaluations demonstrated appropriate insight, as no significant difference existed between student and faculty coach evaluations. Students had favorable opinions of the SP activity; 88% percent stated the activity should be repeated in its current form. In future years, the activity can be enhanced with formal education in the legal and ethical context for informed consent.

### **EP-3 Advocacy 101: A Resident-Led Workshop to Engage Residents in Health Policy**

*Lauren Moak Williams, MD*

*University of Minnesota/North Memorial Family Medicine Residency*

*Peter Meyers, MD, MPH*

*United Family Medicine Residency*

We share our experience in developing an advocacy and health policy workshop for residents. The workshop was entirely resident designed and driven, with funding and administrative support from the Minnesota Academy of Family Physicians (MAFP). Our goal was to give residents tools to better engage with health policy and connect with the MAFP and its physician leadership. The workshop included sessions on connecting with legislators, a resident perspective working on a specific advocacy campaign, and a resolution workshop. There was consistently positive feedback from residents, and 5 of the resolutions authored will go on to be presented at the MAFP House of Delegates. We hope that our experience will help other AAFP State Chapters in carrying out similar initiatives, in order to provide advocacy training to any family medicine resident who has interest in health policy.

### **EP-4 Educating Medical Students on Transgender Health**

*Riley Smith and JC Chen*

*The Ohio State University College of Medicine*

Transgender individuals face various health disparities, including increased prevalence of psychiatric disorders, substance abuse, and suicide. Although the biggest barrier to medical care for transgender patients is lack of providers with expertise in transgender medicine, few medical schools provide education on transgender health. A novel educational module on transgender health was introduced into the preclinical curriculum for Year 2 medical students. Anonymous surveys were completed before and after module completion to assess perceived skills, attitudes, and knowledge regarding transgender health. The study group consisted of Year 2 students who completed both the pre- and post-module assessments and Year 1 students who served as a control and only completed the pre-module assessment. A total of 131 students completed the pre-module assessment and 59 completed the post-module assessment. Results of a one-way ANOVA demonstrated a statistically significant increase in perceived skills and knowledge in caring for transgender patients after module completion. Differences in measures of attitudes towards transgender patients were not significant. This study demonstrates the effectiveness of incorporating an electronic education module in improving medical students' skills and knowledge about transgender health.

## Research

### **R-1 Educational Intervention Course to Improve Sleep and Well-Being in Students at Francisco Bravo Medical Magnet High School**

*Alexandra Colt*

*Keck School of Medicine of the University of Southern California*

Adolescent sleep physiology does not align well with school schedules, and in combination with homework and distractions, many students are at risk for sleep deprivation. This can harm health, mood, and academics. This educational intervention course, which included a sleep habit change project and journal, sought to improve high school freshmen's sleep habits, depression, and knowledge regarding sleep. Eighteen students completed the course and t-tests analyzed their pre- to post-intervention change. Subjects increased school night sleep hours ( $p=0.013$ ), went to sleep earlier on weekends ( $p=0.031$ ), and learned weekend "catch up sleep" is not advisable ( $p=0.010$ ). Subjects reported improvements in mood, tiredness, and energy, and less caffeine use. Depression levels trended downward. Before the course, 33% of subjects thought they slept enough, whereas 61% thought so after. Subjects indicated the sleep habit journals increased their ability to improve sleep habits, suggesting an interactive task, along with knowledge, is key to habit improvement. The most common goal for change after this course was no electronics usage before bed, suggesting that although electronics are important to this age group, subjects are motivated to change their usage in order to better sleep. This suggests a need for increased adolescent education and intervention regarding electronics and their impact on sleep.

### **R-2 Retrospective Chart Review Assessing Length of Breastfeeding in Patients at a Federally-Qualified Health Center: A Five-Year Post-Intervention Follow-Up Study**

*Clayton Cooper*

*Penn State College of Medicine, University Park Regional Campus*

Background: When clinicians at Southeast Lancaster Health Services suspected low rates of breastfeeding among patients in 2011, a retrospective chart review found their suspicions were correct. Interventions at the clinic and local hospital were conducted, and a five-year follow-up study reassessed breastfeeding rates to determine the effectiveness of the increased interventions. Methods: Two retrospective studies were carried out; a chart review in 2011 and a survey by phone in 2016. Women were also asked which breastfeeding support and education services they took advantage of to determine whether these interventions increased breastfeeding duration. Results: There was a statistically significant increase in breastfeeding rates in 2016 over 2011 beginning at one month postpartum which continued through six months. Participation in a group education class had a significantly positive impact on duration of breastfeeding. Education from a lactation consultant at the hospital or clinic increased length of breastfeeding too. Whether a mother had previously breastfed and being personally breastfed as an infant were found to be independent predictors of increased breastfeeding duration. Conclusion: Mothers at SELHS are breastfeeding longer now than in 2011, and the increased patient education and support at the clinic and hospital are contributing factors.

**R-3 Increasing Trend of Sexually Transmitted Infections in San Bernardino County Juvenile Detention Facilities**

*Lidia Liang and Jake Toy*

*Western University of Health Sciences - College of Osteopathic Medicine of the Pacific*

It has been well established that youth in juvenile detention centers are at a higher risk for sexually transmitted infections (STI) compared to the general adolescent population. We assess trends of chlamydia (CT) and gonorrhea (GC) positivity and treatment coverage in juvenile detention centers in San Bernardino County following implementation of universal screening protocol at booking. A review was conducted of males and females ages 12 to 18 who underwent STI screening from 2009 to 2016 upon booking into juvenile detention centers in San Bernardino County. Among females in San Bernardino County detention facilities between 2009 and 2016, trends of CT infections increased from 11.5% to 16.6% while trends of GC infections increased from 1.2% to 6.0%. Similarly, male CT screening positivity increased from .4% to 1.5% between 2013 and 2016. Despite a statewide decreasing trend of CT positivity among incarcerated female juveniles, the current study demonstrates an increasing trend of documented CT and GC screening positivity upon booking for males and females in the San Bernardino County juvenile detention system. We suggest that universal screening practices, improvement of treatment coverage, and collaboration with community medical resources are essential in reducing STI rates among this vulnerable population.

**R-4 Cancer Survivor Anxiety Persists Long After Treatment Completion**

*Anna Mark*

*University of Iowa Carver College of Medicine*

Cancer Survivor Anxiety Persists Long After Treatment Completion Cancer survivors in the USA are expected to increase from 13.7 million in 2012 to 18 million in 2022. We sought to identify gaps in the care provided to cancer survivors to better define the role of primary care within this population. Purposive sampling was used to find survivors to participate in a focus group. Eligible participants were ≥25 years of age, had any type of cancer diagnosis, and were at least 18 months from treatment. Fourteen survivors attended one of two focus groups and participated in discussion about their survivorship experience. The data collected from the focus groups was analyzed using the constant comparison method which identified anxiety as an emerging theme. This is supported by the literature as cancer survivors have an increased prevalence of anxiety that can persist years after diagnosis and both primary care providers and survivors support a greater role for primary care in survivorship care. The focus group data shows survivors support a role for primary care in assessing and managing anxiety and underscores that improvement in communication among all stakeholders will improve quality of care for cancer survivors.

**R-5 Knowledge of Dementia Among Vietnamese American Immigrants**

*Natalie Nguyen, Kelly Vo, Sophia Ho, and Peter Nguyen, DO*

*Western University of Health Sciences - College of Osteopathic Medicine of the Pacific*

It is suspected that the Vietnamese American population in California has limited knowledge of dementia and demonstrates strong resistance in acknowledging dementia as a pathological disease rather than a natural process. The culture fosters an attitude of avoidance and the amount of knowledge the community has about dementia is unknown. 102 Vietnamese American participants were chosen from various community health events to assess for their understanding of dementia using survey questionnaires. The mean score of questions answered correctly was 7.17 (71.7%) out of 11 possible questions with a standard deviation of 1.9. The data shows that the community understands that dementia is a treatable biological process but believes slow pathological cognitive decline as a part of the normal aging process. As a result, further research is warranted to determine if education or community outreach programs would lead to a greater number of patients that seek dementia evaluation and treatment.

**R-6 Identifying Potential Barriers Encountered for the Completion and Implementation of Advance Directives Among Primary Care Physicians in Puerto Rico**

*Dayhana Pena, MD, Francisco Calles, MD, Keydi Betancourt, MD, and Dania Leiva, MD  
University of Puerto Rico*

The American Medical Association suggests physicians can play an important role in the advance care planning process by making it a routine part of patient care. Despite Federal and State level implementation of regulations for the completion of advance directives only 25% of adults in the US have completed advanced directives. We sought to identify potential barriers for the completion of advanced directives in the population of primary care physician from Puerto Rico's Federally Qualified Health Centers(FQHC). 144 of 167 primary care physicians completed a self-administrated questionnaire. Descriptive statistics and bivariate analysis were performed. 97% reported knowing what advanced directives are and, 98% agreed the primary care physician is responsible for initiating the conversation about advanced directives. However, only 62% of respondents had participated in the completion of advanced directives. Analysis revealed significant relationship between having orientation materials about advanced directives and participating in the discussion with patients; and between knowledge about advance directives and participation. No relationship was found between sex, specialty or receiving continuing medical education and participating in the completion of advanced directives. This supports written materials should be available at FQHC to facilitate completion of advanced directives. Further longitudinal research is needed to confirm these results.

**R-7 Characterizing Pain Beliefs Among Homeless Individuals: Setting the Foundation for Socially-Informed Care**

*Kent Simmonds, Jeremy Weleff, and Arta Duda  
Michigan State University College of Osteopathic Medicine*

Introduction: Homelessness affects 1.59 million individuals annually. Few studies have assessed pain, and no identified study has characterized pain beliefs among homeless individuals. This study aimed to assess pain beliefs among homeless individuals. Methods: A convenience sample of 100 homeless individuals (74% response rate) was obtained. Individuals were asked to complete a questionnaire consisting of demographic information, perceived causes of pain, and the back beliefs questionnaire (BBQ). The BBQ is a widely-utilized pain beliefs questionnaires that has been used among diverse populations. Descriptive statistics were used to analyze the data. Results: The average age was 47 years old, and participant ethnicity was African American (85%), white (14%). Males (52%) and females (48%) were equally represented. Major perceived causes of pain were injuries (56%), and living Conditions (36%). Many believed back pain was a lifelong condition (78%), which would stop an individual from working (87%). Surgery (45%) was favored over medication (39%) for treatment. 83% believed back pain progressively worsened (83%)and 90% percent believed a bad back must be rested. Conclusions: Pain beliefs pose challenges to pain management. Results identify common maladaptive beliefs for clinicians to address. Implementation research is needed to identify how to change pain beliefs among homeless individuals.

**R-8 Text Messaging Use in African American Women Ages 40-78**

*Malia Swanson*

*University of Maryland School of Medicine*

Low-income African American women's under utilization of screening mammography likely contributes to the higher breast cancer mortality rates in this population; effective interventional strategies are needed to improve their participation in screening mammography. One possible strategy could be using cell phone text messaging to remind women of their mammography appointments. Therefore, our aim was to determine the text message utilization practices of African American women ages 40-78 in an urban primary care setting as an initial assessment of the feasibility and acceptability of a text message behavioral intervention in order to increase African American women's participation in screening mammography. We administered a paper-based survey on text messaging practices of 40-78 year old women (n= 120) who are patients in an urban, academic Family Medicine practice. Our results indicate that screening mammogram appointment reminders via text message would be an acceptable and feasible means of communication for woman ages 40-69 years. Although those 70 years and older report that they do not use text messaging, 33.3% of these women would be willing to receive text mammogram appointment reminders. Thus, such text message reminders would be acceptable but not feasible as the sole means of reminding a women over 69 of her upcoming mammogram appointment.

**R-9 The Association Between a Mediterranean-Style Diet and Incidence of Stroke: The Multi-Ethnic Study of Atherosclerosis**

*Devesh Vashishtha, Arvin Wali, and Charlie Park*

*University of California, San Diego*

Prior studies have shown a relationship between the Mediterranean diet and incidence of stroke. However, none of these studies examined a multi-ethnic population that includes African Americans, Hispanics, Whites, and Chinese-Americans. We carried out a time-to-event analysis using prospective data from the Multi-Ethnic Study of Atherosclerosis (MESA) from 2000-2014. The primary predictor was the Alternate Mediterranean-Style Diet (aMed) Score, grouped into four categories. The outcome was incident stroke, which included 253 fatal and non-fatal strokes identified via brain imaging and/or presence of an acute focal neurologic deficit. In a model adjusting for total caloric intake, age, gender, race/ethnicity, smoking status and total weekly exercise, when comparing the highest category of aMed score to the lowest category, there was no significant difference in the risk of stroke (Hazard Ratio = 0.82,  $p = 0.43$ ). We also did not find evidence of an interaction between race/ethnicity and incidence of stroke (Pinteraction = 0.96). While our results do not support a relationship between a Mediterranean-Style diet and incidence of stroke, we found that our study was underpowered to determine a significant difference. There may be value in using MESA data at a later follow-up to assess the relationship between Mediterranean diet and stroke in an ethnically diverse population.