

Showcase of Medical Discoveries

***A Focus on
Community Research***



**Wednesday
September 25, 2019
4:30—6:00 p.m.**

***A Wine & Cheese Reception Featuring
UAMS Investigators Discussing their
Research and Discoveries.***

Winthrop P. Rockefeller Cancer Institute
10th Floor Rotunda

UAMS
For a Better State of Health

Poster #1

***Al-Anon Intensive Referral (AIR): A Qualitative Formative
Evaluation for Implementation***



Jure Baloh, PhD; Geoffrey M. Curran, PhD; Christine Timko, PhD; Kathleen M. Grant, MD, and Michael A. Cucciare, PhD

Al-Anon meetings help concerned others (COs; e.g., families, friends) of alcoholics better cope with their problems, but are poorly attended. Al-Anon Intensive Referral (AIR) was developed to facilitate COs' engagement in Al-Anon and is being tested for effectiveness. In parallel, we interviewed 31 directors and staff at 10 community and Veterans Affairs (VA) addiction treatment programs to learn about facilitators and barriers to AIR implementation. Participants generally thought that AIR has face validity and aligns with their values and skills, and at community sites also their current CO programs. While some sites reported sufficient staffing for delivering AIR, other sites are understaffed, and VA sites have limited resources for CO services. Furthermore, many clients have no COs or they are unengaged. Our findings indicate potential for AIR implementation, but adaptations to local context will be necessary, and future studies need to evaluate fidelity and effectiveness of these adaptations.



Poster #13

***Newborn Screening for Severe Combined Immune Deficiency
in Arkansas: Economic Value***



Laura Hays, PhD, APRN, FAHA

SCID is a primary immune deficiency with absence of functioning T and B lymphocytes. Hematopoietic cell transplantation provides potentially curative treatment. This project examined societal costs and benefits of NBS for SCID in Arkansas with implications to health services and social welfare.

Data were collected from Arkansas NBS statistics; NBS laboratory manager; and Arkansas NBS Protocols to establish cost and treatment for early diagnosis of SCID. Literature review provided estimation of treatment cost for late diagnosis.

Cost estimate/year of NBS for SCID and early treatment for one patient in Arkansas: \$1,078,714. Cost estimate of late treatment for one patient with SCID in Arkansas: \$1.43 million. With expected diagnosis of one patient/year, estimated Arkansas NBS net cost savings for SCID: \$351,286/year.

With higher societal benefit than cost, this screening is supported. Research that provides evidence for greater benefit versus cost in screening for additional rare genetic conditions should be advocated.

Poster #2

***Building Capacity in Community Engagement: The TRI Community
Scientist Academy (CSA)***



Kate Stewart MD MPH, Nicki Spencer MHA, Anna Davis, Rachel Hal MA,
Camille Hart MPH, Beatrice Boateng PhD, Amy Jenkins,
and Laura James, MD

Community engagement is an essential element of translational research. The Community Scientist Academy (CSA) was developed in response to the Translational Research Institute's Community Advisory Board to engage and capacitate community members by 1) increasing community members' and patients' understanding about the research process and 2) increasing their access to opportunities to influence and participate in research. This 8-hour workshop includes interactive sessions on: 1) research definitions and processes, and participatory research; 2) study design; 3) study implementation; and 4) ways to get involved in research. Two pilots of the CSA were conducted with community members and patients. The pilot included 24 diverse participants, over half of whom had not previously participated in research. Evaluation data suggest knowledge gains. Post-CSA, one third have reviewed CTSA pilot grants and over 80% want to attend further training. The CSA has been implemented with almost 100 participants since 2016.

Poster #3

Passion Project's Additional Health Resources build Positive Outcomes in Women Substance Use Disorder Clients



Kisa Vaughn, MPA, LaTunja Sockwell and Cindy Crone

The Passion Project was established to improve health outcomes and reduce health disparities among female African American clients in treatment for substance use disorder clients at the Better Communities Development Center in Little Rock, Arkansas. Primary goals are to expand the number of African American women receiving evidence-based, culturally appropriate, and woman-centered care and reduce HIV and Viral Hepatitis by integrating targeted HIV/VH prevention into the enhanced SUD treatment program.

The CDC reported that Arkansas is one of 7 states in the South that make up 50% of the nation's HIV/AIDS cases. In Arkansas, over 400 people were diagnosed with HIV/AIDS in 2017. Black women bear the burden of HIV diagnoses compared to other racial groups. This study's purpose is to obtain pilot data to determine whether enhanced programming leads to completion of treatment and healthier lifestyles resulting in a reduction in mental health concerns, HIV, STI, and substance abuse.

Poster #12

An Exploration of the Role of Health Literacy with Chemotherapy Knowledge in Women with Breast Cancer



Pearman D. Parker, PhD, MPH, RN, Sue P. Heiney, PhD, RN, FAAN;
Swann A. Adams, PhD; Daniela B. Friedman, PhD;
and Robin M. Dawson, PhD, RN, CPNP-PC

Chemotherapy knowledge is linked to managing side effects, reducing exposure to infection, and adjusting self-care behaviors. Nurse educators use several teaching methods, but no research exists regarding the influence of health literacy on learning about chemotherapy. We used a descriptive, exploratory design with convenience sampling of women with BRCA receiving IV chemotherapy. Participants completed three valid, reliable instruments: 1) Rapid Estimate of Adult Literacy – Short Form (REALM-SF); 2) Shortened Test of Functional Health Literacy in Adults (S-TOFHLA); and 3) Leuven Questionnaire on Patient Knowledge of Chemotherapy (L-PaKC). We used uni-variate linear regression to identify how health literacy influenced chemotherapy knowledge. Forty-six women completed surveys (50% African American, 47.8% White, 2.2% other) with a mean age of 59 years (range 40 – 78). Health literacy was significantly associated with chemotherapy knowledge (REALM-SF, $p = 0.02$; S-TOFHLA, $p = 0.02$). Nurses may consider tailoring teaching for patients of various health literacy skill levels.

Poster #11

***Dodecafluoropentane Emulsion in Acute Ischemic Stroke,
a Phase 1b/2 Randomized and Controlled Trial***



Culp WC, Onteddu S, Brown A, Nalleballe K, Sharma R,
Skinner AD, Witt T, Roberson PK, and Marsh J

Introduction: The oxygen transporting nanodroplet Dodecafluoropentane Emulsion (DDFPe) (NuvOx Pharma, Tucson, AZ) given IV can reduce stroke symptoms and volumes markedly in animal studies. A randomized, placebo-controlled, double-blinded dose escalation acute ischemic stroke trial explored Maximum Tolerated Dose, adverse events and impacts on acute NIHSS values and long-term outcomes.

Methods: Acute patients were randomized to IV DDFPe or placebo within 12 hours of onset. Standard stroke care continued. Each dose cohort included 8 patients, with 2 receiving placebo and 6 DDFPe. Primary outcomes were SAEs, AEs, NIHSS values, and mRS.

Results: No Dose Limiting Toxicities and no maximum dose were defined. SAEs, and AEs were similar with one unrelated delayed death in the placebo and one in the DDFPe group. High dose DDFPe mRS outcomes suggested improvement $p=0.01$ at 30 days and $p=0.03$ at 90 days.

Conclusions: IV DDFPe was safe and shows signs of neuro-protection efficacy.

Poster #4

HIV Education among Men in a Treatment Setting



LaTunja Sockwell and Berry Marks

The purpose of this study was to obtain data to determine feasibility of incorporating HIV/STD education and testing into a treatment center. Men enrolled in the project will receive education around HIV/STDs and risky behaviors, how to reduce HIV stigma and stigma regarding testing, and allow clients an open easy dialogue about their sexual health. An external trainer with no affiliation with the treatment site provides HIV education. One of the goals of this project is to increase African American men's HIV testing practices and increase PrEP uptake among negative at risk participants.

Poster #5

Feasibility of mHealth Technology to Improve Self-Management of Heart Failure in Older Adults



Leanne L Lefler, PhD, APRN, ACNS-BC, FAHA, Sarah J Rhoads, PhD, DNP, WHNP-BC, Melodee Harris, PhD, APRN, Claudia J Beverly, PhD, RN, FAAN, Janet L Rooker, MNsc, RNP, and Isis D Martel, MS

Remote patient monitoring shows promise in improving heart failure (HF) management, increasing quality of care while reducing hospitalizations and costs; limited information exists regarding perceptions of older adults about mHealth use. This study aimed to compare perspectives of older adults with HF who were randomized to one of 3 groups, connected equipment, home equipment or standard care with regard to ease and satisfaction, provider communication and ability to manage their disease. Using a mixed-methods descriptive design, we enrolled 28 patients with HF and followed them for 12 weeks. At baseline, 46% did not monitor their weight, 29% did not monitor their blood pressure, and 68% did not monitor for symptoms. Post intervention, 100% of the equipment groups monitored daily. Technology usability reflected ease of use. Distressing symptoms were unpredictable with 79 provider visits and 7 visits to emergency departments. mHealth equipment is feasible with the potential to improve self-management in older adults.

Poster #10

Community Partner-Led Data Collection Using a Computer-Based Audience Response System: Lessons Learned



Keneshia Bryant-Moore, PhD, APRN, FNP-BC; Tiffany Haynes, PhD; Karen Kim Yeary, PhD; Johnny Smith, BS; and Jerome Turner, MDiv.

A community-academic team implemented a study involving quantitative data collection using a computer-based audience response system (ARS). Community partners led recruitment and data collection efforts. Health assessment survey sessions were conducted in 30 churches across two rural counties in Arkansas with a total of 461 participants. A trained focus group facilitator conducted a reflection exercise that consisted of two focus groups—one academic (n=6) and one community (n=3) research team members. A total of 9 research team members participated in the focus groups. The self-reflection exercise resulted in three lessons learned themes: the positive aspects of the ARS; challenges to overcome; and recommendations for the future. The lessons learned can help other community-academic research partnerships effectively use ARS for community-led data collection. Overall community-led ARS data collection was viewed as a successful method in participatory research, with some minor changes and consideration of its limitations in future partnered projects.

Poster #9

Experiences in Conducting Research Across Arkansas Sites for a Study Comparing Patient Reported Data with EHR Data



Meredith Zozus, Marcia Byers, Amy Bowen,
Bianca Johnson and Amy Jones

The Assessing the Quality of Electronic Health Record Data and Participant-reported Data study, better known as the EHR Data Quality Study, compares self-report medical conditions, hospitalizations, procedures, class-level medications, and smoking status to corresponding data in the local EHR. We want to understand the quality of EHR data for secondary use. The study is being conducted in clinics across Arkansas and in North Carolina.

The UAMS clinical site team is working with Regional Program sites to recruit study participants in the clinic sites. The study team collects data from the participant, then it is compared to their EHR data. If there is a discrepancy, the participant is interviewed over the phone to help explain the differences. So far, we have learned valuable lessons that impact clinical research activities within a local setting ranging from clinical workflow to community specific population characteristics.

Poster #6

A Community-engaged Approach to Nutrition Improvement through Policy, Systems, and Environment Changes



Emily English, DrPH, MPS and Christopher Long, PhD

UAMS Office of Community Health and Research, located in Fayetteville, Arkansas, is working with K-12 schools, early care and education settings, food pantries, faith-based organizations, community meal programs, and state parks to meet the nutritional needs of Arkansans. In each setting, the UAMS team applied its three-step process for community nutrition improvement: (1) engage stakeholders to assess the food environment and design a nutrition plan; (2) implement the plan by modifying menus, adjusting procurement practices, training staff, and modifying the environment to nudge healthier choices; and (3) ensure sustainability by establishing nutrition policies, sustainability plans, and strategies for media and messaging. The UAMS team uses program evaluation before and after each step to document evidence for each activity's effectiveness (e.g., increased vegetable consumption in food pantries and reduced sodium served in schools). In this way, the UAMS team has added to the scientific evidence base for community-based nutrition improvement interventions.

Poster #7

Preliminary Results from an Implementation Trial of Obesity Prevention Practices in Head Start



Nicole McBride, MPH, Victoria Langley, Janna Martin, BA
Karen Davenport, BA, Audra Staley, and Taren Swindle, PhD

This study reports on a cluster-randomized Hybrid III trial designed to test stakeholder-selected implementation strategies to support Together, We Inspire Smart Eating (WISE). A stratified randomization approach allocated 4 Head Start sites to receive enhanced implementation support (i.e., treatment) and five sites to standard support (i.e., control). Re-AIM guided the evaluation. Significant treatment effects were observed for Adoption and Implementation, but not Reach or Effectiveness. Specifically, teachers in the enhanced condition reported greater readiness for change ($p = .04$), fewer barriers to implementation ($p = .008$), and higher feasibility ($p = .05$) and appropriateness ($p = .03$) of WISE. For fidelity, there were significant difference for 3 of the 4 WISE practices (all $p < .03$, effect sizes $> .80$). Reported reach of lessons was greater in the enhanced group, but not significantly so (69% basic, 76% enhanced). Child carotenoid levels increased in both groups (11% basic, 13% enhanced), but did not differ between.

Poster #8

The Faith-Academic Initiatives for Transforming Health (FAITH) Network Research Advocate Training Program



Keneshia Bryant-Moore, APRN, FNP-BC, Tiffany Haynes, PhD
and Pastor Bryant Whitted

UAMS researchers have a lengthy history engaging the faith community, but only a few faith leaders have the capacity to engage in research as equal partners. Therefore, in 2016 an infrastructure was developed to support faith-based research network called the Faith-Academic Initiatives for Transforming Health (FAITH) Network which includes a training for faith leaders called the FAITH Network Research Advocate program. In 2018, two Cohorts of faith leaders were recruited to participate in the pilot training program. The first cohort was in Pulaski County, Arkansas ($n=5$) and the second in Mississippi County, Arkansas ($n=8$). The program includes 5 in-person trainings (3-hours each), homework activities, and a 40-hour paid internship over a 4-month timeframe. The greatest knowledge for the participants was in the research process and funding units. Overall, the participants enjoyed learning about research and how they can play an active role in eliminating health disparities in Arkansas.