

Duquesne University

Annual Progress Report: 2010 Formula Grant

Reporting Period

July 1, 2014 – December 31, 2014

Formula Grant Overview

The Duquesne University received \$116,091 in formula funds for the grant award period January 1, 2011 through December 31, 2014. Accomplishments for the reporting period are described below.

Research Project 1: Project Title and Purpose

From Insoluble Perfluorocarbon Oils to Multifunctional Nanoparticles for Breast Cancer Imaging and Treatment - The purpose of this project is the development of novel multifunctional perfluorocarbon (PFC) based magnetic resonance (MR) detectable drug delivery vehicles. Specifically, nanoemulsions, microemulsions and gels for localized delivery of anti-inflammatory agents to breast tumors will be prepared. The PFC based drug delivery vehicle localization, accumulation and distribution can ultimately be quantitatively and qualitatively assessed *in vivo* by ^{19}F MRI. Fluorine-19 has very low biological abundance in tissues and ^{19}F MR directly detects the density of ^{19}F spins contained in the PFC molecules without background. We hope to develop true theranostic agents, therapeutic and diagnostic for breast tumor imaging and treatment. Recent epidemiological studies demonstrated that treatment with nonsteroidal anti-inflammatory agents (NSAIDs), such as COX2 inhibitors, can reduce the risk of developing breast cancer, with aspirin and celecoxib showing the most significant effects. Clinical and experimental evidence strongly suggest COX2 inhibitors as new adjuvant breast cancer treatments. The purpose of this project is to incorporate a COX2 inhibitor into a ^{19}F MRI visible nanoreagent for anti-inflammatory adjuvant treatment in breast cancer.

Duration of Project

1/1/2011 - 12/31/2013

Summary of Research Completed

This project ended during a prior state fiscal year. For additional information, please refer to the Commonwealth Universal Research Enhancement C.U.R.E. Annual Reports on the Department's Tobacco Settlement/Act 77 web page at <http://www.health.pa.gov/MyRecords/Health-Research/CURE>.

Research Project 2: Project Title and Purpose

Promoting Health and Health Care Access in the African Refugee and Immigrant Community: A Participatory Action Research Study - The purpose of this Participatory Action Research project is to understand specific culturally shared knowledge about health and to develop strategies to promote health and health care access in the African immigrant and refugee community. The overall goal is to engage the African immigrant and refugee community in identifying, planning, prioritizing and evaluating strategies to promote health from the unique cultural view and to empower people to create their own destiny regarding the reduction of health disparities in this community.

Duration of Project

1/1/2011 - 12/31/2014

Project Overview

The broad research objective for this project is to gain an understanding of specific cultural beliefs, values and strategies to promote health and health care access in the African immigrant and refugee community. The specific aims of the research are to: 1) explore the health promoting needs of African immigrants and refugees; 2) describe the health care access needs of African immigrants and refugees; 3) understand the culturally congruent process of developing strategies within the specific immigrant and refugee community to address the health promoting and health access needs of the community; and 4) compare the perceptions of self-reported health status for African immigrants and refugees at the beginning and end of the study.

Method and design: This Participatory Action Research (PAR) project will utilize a mixed methods approach, including focused ethnography and the Short Form Health Survey Instrument (SF-12), to gather data at the beginning and end of the study from the informants. Four common characteristics of PAR are: 1) uncovering solutions to health problems; 2) collaboration between researchers and the community; 3) implementation of change during the process; 4) and development of a theory. The design includes a cycle, which includes the plan, action, observation, reflection, and plan or revised plan, followed by acting, reflecting, and evaluating.

Informants and setting: Informants for this study will be recruited from the Pittsburgh and Allegheny County area and include any adult members (>18-90 years of age) from the African immigrant and refugee community who are willing to participate in the study. The researchers will seek out approximately 50 to 60 adults for the core and focus groups for this study. In addition, the groups will include a researcher, nursing faculty, and the Executive Director of Acculturation for Justice, Access and Peace Outreach (AJAPO). Informants will be purposefully sought via word of mouth and snowball method by AJAPO from cultures (Somali, Burundi, Sudanese, Liberian, Zambian) representing the African immigrant and refugee population in this city.

Instruments: A researcher-generated, semi-structured interview guide and demographic form will be used to understand specific cultural knowledge and strategies to promote health and health care access in the African immigrant and refugee community. In addition, the SF-12 will be used to measure (pre and post-intervention) eight domains of health: physical functioning, role limitations due to physical health, bodily pain, general health perceptions, vitality, social functioning, role limitations due to emotional problems, and mental health.

Principal Investigator

Rick D. Zoucha, PhD, RN, PMHCNS-BC
Associate Professor
Duquesne University
600 Forbes Avenue
Pittsburgh, PA 15282
526 Fisher Hall

Other Participating Researchers

Shirley Smith, PhD, RN, Kathy Mayle, MNEd, MBA, RN - employed by Duquesne University
Yinka Aganga-Williams, PhD – employed by Acculturation for Justice, Access and Peace Outreach

Expected Research Outcomes and Benefits

The primary expected outcomes and benefit are that the community can immediately use the findings from this project to promote health and health care access for this population. Through the process of Participatory Action Research, members of the community are part of the research process in identifying problems and solutions and can control their own destiny regarding health and health care access based on their unique cultural values. It is significant that care and health care needs be articulated and understood and treated in the cultural context of the people being served. The immigrant population in this community experiences health disparities due to their immigrant or refugee status. Research with outcomes that result in immediate benefit to the community is imperative.

The African immigrant and refugee community, which utilizes the services of AJAPO, is plagued with problems related to economic issues, social concerns, violence, political impact, and other health-related issues. Nurses, collaborative health care professionals, and community members can and will work together to form partnerships that promote healthy communities. The goal of empowering individuals, families, and communities to create their own destiny regarding their health and health care access is the ultimate benefit of this research. The expected outcomes and benefits of this project include a community-academic partnership with the continued goal of promoting quality health care to this underserved community.

Summary of Research Completed

The research completed from July 1 – December 31, 2104 was phase two of the overall study. This phase addressed aim 3 of the study (understand the culturally congruent process of developing strategies within the specific immigrant and refugee community to address the health promoting and health access needs of the community) and involved carrying out the community-defined intervention, followed by concurrent observation or monitoring of the implementation and suggestions for future direction. Thematic findings from phase one focusing on aims 1 and 2, (ethnography) guided the intervention for the African immigrant and refugee community with the aim of reducing health disparities. The overarching themes that guided the intervention in phase two were:

1. The Somali, Burundi, Sudanese, Liberian and Zambian refugee communities share a common journey with various stops and lengths of stays from their country of origin to the United States
2. Poverty, inability to pay for health care serves as a major barrier to health care access for African refugees and immigrants
3. Language, social isolation and mistrust of health care professionals and institutions restrict the use of health care services for African refugees and immigrants
4. Community and family violence is a major health care issue due to lack of community and Elder support and misunderstandings of the host culture

In consultation and collaboration with members of the African Immigrant community and (AJAPO) Acculturation for Justice, Access and Peace Outreach it was decided that the Duquesne University School of Nursing would collaboratively offer a conference with a major focus on listening and dialogue. The gathering would specifically address the themes identified by the African Immigrant and Refugee community. To this end, the following activities followed in phase 2 of the study.

The title of the conference was: Culture and Health at a Crossroads: Dialogue on Change and Opportunity for African Immigrants and Refugees. The Conference Objectives were: 1. Describe the role of advocacy for the health and wellbeing of the immigrant and refugee communities in the Pittsburgh area. 2. Communicate the cultural needs of the African immigrant and refugee communities. 3. Recognize the health care services available to the African immigrant and refugee communities in the Pittsburgh area. 4. Describe methods to navigate health care access in the Pittsburgh area. 5. Identify ways in which the African immigrant and refugee communities can be empowered to reduce health disparities. 6. Discuss the cultural care needs of African immigrants and refugees in the Pittsburgh area.

The Duquesne University School of Nursing and AJAPO gathered representatives from the major health care institutions in the Pittsburgh area (University of Pittsburgh Medical Center, Allegheny Health Department), School of Business and the faculty from the Forensic Nursing program from Duquesne University. The purpose of this unique opportunity was for health care providers, nursing educators, researchers and students to learn and hear from African immigrants

and refugees about their cultural needs regarding health and health care access. Representatives from the health care institutions were asked to share with the community what they have to offer regarding culturally competent health care and services. The conference was designed with the hope that bringing the groups together would begin a meaningful dialogue between health care institutions and the people they serve. The conference included a panel for health care representatives to talk about services offered. All participants were offered concurrent session to come together and listen to the participants who are members of the immigrant and refugee community to discuss their unique cultural perspectives regarding their cultural health care needs to the providers. Listening was a key component of the conference, with dialogue as a natural result. There were also opportunities for members of the community to attend specific session based on their needs for resources from business, violence prevention and health care services.

There were 53 people who attended the day long conference on December 6, 2014. They were a mixture of people from the African immigrant and refugee community, students and health care professionals. Participants were asked to complete an evaluation of the conference as well as identify if they were a health care professional, member of the community or both. Out of 12 participants who provided their role, 4 reported being members of the African immigrant and refugee community, 5 reported being health care professionals and 3 described themselves as both health care professionals and members of the African immigrant and refugee community. A total of 24 participants out of 53 completed the conference evaluation. Please see Table 1.

In addition to the rating scale to evaluate the conference there were questions that elicited qualitative responses. Please see Table 2 for responses from participants of the conference.

The conference evaluation data along with the qualitative responses was shared with the Executive Director of AJAPO for follow-up and evidence for future interventions with the African immigrant and refugee community in the Pittsburgh, PA area.

Table 1

Objectives	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
Describe the role of advocacy for the health and wellbeing of the immigrant and refugee communities in the Pittsburgh area.	21	2	0	0	0
Communicate the cultural needs of the African immigrant and refugee communities.	20	4	0	0	0
Recognize the health care services available to the African immigrant and refugee communities in the Pittsburgh area.	15	8	1	0	0
Describe methods to navigate health care access in the Pittsburgh area.	14	7	3	0	0
Identify ways in which the African immigrant and refugee communities can be empowered to reduce health disparities.	19	4	1	0	0
Discuss the cultural care needs of African immigrants and refugees in the Pittsburgh area.	18	6	0	0	0

Table 2

What did you find most valuable about this seminar?	What did you find least valuable about this seminar?	Please provide any additional comments
		Concrete solutions should have been addressed/discussed
Presentations		
Getting the perspectives of the culture from the people who came to Pittsburgh from Africa		Listening is the key – we need to talk less and listen more
Listening to the dialogue among the participants	N/A	
The composition of the speakers was great. It gave us a great avenue of discussion		We need to have such conferences regularly
Everything that was talked about was very educative and was well explained	Nothing	Was a wonderful experience and learned a lot. The breakfast and lunch was beautiful and delicious, including the reception
Engaging conversations. Learning from one another (healthcare provider and community members)		There are a lot of good resources available. How do we direct them to those who could benefit greatly and help the larger community in spite of race/ethnicity
The interactive approach was very valuable	None	We need more of these sessions at a community level
That it will help more people to know about this		This is so helpful to us as immigrants and also to Americans so that they know what is happening other places
Understanding from an immigrant’s perspective how life is so much different to live so freely in a new world	Not very much. All was pertinent	More immigrants should know of the seminar to take advantage of the knowledge provided
The sharing of the experiences the immigrants had. Health providers need to listen to diverse cultures	Not one thing	I wish that all of my colleagues could have experienced this conference

Hearing from the community attendees as to their perceptions, cultures and needs	All was valuable	
Open discussion Sharing ideas	None	Great program
Cultural perspectives breakout	Too much talk in morning from individual speakers, needed more dialogue	
The whole conference was incredibly informative. The panelists helped frame the overarching theme of the conference. The breakout sessions helped us to delve into a specific topic in greater detail with individuals with similar interests	Nothing!	Awesome conference! I am glad to have spent my Saturday morning and afternoon at this conference
The dialogue	Nothing	
Meeting community	Nothing	
Dialogue and participation of those who were there	See above. It was a good seminar	
Very well organized and put together		
It was wonderful and I am honored to be included		