

Atlanta and Regional Academic Centers Research Conference

Saturday, April 10, 2021

10:00 a.m. – 3:00 p.m.

Conference Schedule:

<u>Time:</u>	<u>Session:</u>
10:00 a.m. - 10:30 a.m.	Welcome, Opening Remarks, & Presentation of Swilley Library Awards
10:30 a.m. – 11:30 a.m.	Student Showcase Presentations <ul style="list-style-type: none"> • College of Pharmacy • College of Health Professions • College of Professional Advancement; Counseling
11:30 a.m. – 11:40 a.m.	<i>Break</i>
11:40 a.m. – 1:00 p.m.	Student Showcase Presentations <ul style="list-style-type: none"> • Georgia Baptist College of Nursing • Tift College of Education • College of Professional Advancement; Math, Science, and Informatics • College of Professional Advancement; Leadership Studies
1:00 p.m. - 1:30 p.m.	Book Discussion Forum / Lunch Break
1:30 p.m. - 2:00 p.m.	Professional Development Seminars <ul style="list-style-type: none"> • <i>Using NVivo</i> – Dr. Carol Isaacs • <i>IRB at Mercer</i> – Dr. Ava Chambliss Richardson
2:00 p.m. - 2:30 p.m.	Professional Development Seminars <ul style="list-style-type: none"> • <i>Using MTurk for Data Collection</i> – Dr. Kathleen Bazile • <i>How to Choose Psychometric Instruments</i> – Dr. Justus Randolph
2:30 p.m. - 3:00 p.m.	Student Showcase Presentations <ul style="list-style-type: none"> • Stetson-Hatcher School of Business • College of Professional Advancement; Liberal Studies

Important details:

- The 2021 Conference will be held via zoom ([advance registration is required](#)).
- *Introduction* and all *Student Showcase Presentations* will be hosted with this zoom link: <https://mercer.zoom.us/j/91731883104>
- *Professional Development Seminars* and the *Book Discussion Forum* have separate links (listed below).
- All sessions will be recorded and can be viewed at a later date.
- Poster presentations can be viewed here: <https://ursa.mercer.edu/handle/10898/12528>

Welcome & Opening Remarks

10:00 a.m. - 10:30 a.m.

<https://mercer.zoom.us/j/91731883104>

Introduction: Cameron Miller, Chair, Conference Planning Committee

Welcome: Priscilla Danheiser, Dean, College of Professional Advancement

Opening Remarks: Wayne Glasgow, Senior Vice Provost for Research

Swilley Library Student Research Award Presentation

Presenter: Kim Eccles, Director of Swilley Graduate and Professional Library

Winner: Jordon Beasley, College of Professional Advancement. *Establishing a School Counselor Program Evaluation Taxonomy: Where We Are and Where We're Going.*

Runner-up: Yomi Adeyeye, College of Health Professions. *Acute Pancreatitis: Evaluation and Management Recommendations in a Critical Care Setting.*

STUDENT SHOWCASE PRESENTATIONS

Zoom link for all Student Showcase Presentations: <https://mercer.zoom.us/j/91731883104>

Harnessing Vaccine Nanotechnology to Fight Infectious Diseases

10:30 a.m. – 10:50 a.m.

Presenter: Ipshita Menon

Moderator: Martin D'Souza

College/Discipline: College of Pharmacy

Vaccines are the most efficient way to tackle deadly infectious diseases. The recent COVID-19 pandemic has made us realize the importance of vaccination. Vaccines mimic infections and deploy the body's immune system to fight the pathogen. For the body to generate an immune response, the vaccine must be identified as a foreign entity. Numerous prior studies in our lab have proven that vaccine antigens encapsulated in a nanoparticle or microparticle matrix are taken up more efficiently by antigen-presenting cells. A study involving inactivated influenza virus encapsulated in a microparticulate matrix composed of Eudragit elicited a robust immune response. Particulate vaccines can also be used to deliver nucleic acid vaccines. We demonstrated that a pDNA based rabies vaccine showed better immunogenicity when delivered in a polymeric matrix. Current studies in our lab involve the formulation of microparticulate vaccines for respiratory syncytial virus (RSV), influenza, zika, gonorrhea, and SARS-CoV-2. The microparticle vaccines have been formulated using various matrixes such as albumin, and PLGA to name a few. We have observed promising results in all of these particulate vaccine studies. Particulate vaccines have demonstrated the ability to generate a robust immune response both in vitro and in vivo in pre-clinical mouse models. Thus, in the absence of licensed vaccines for various infectious diseases, particulate vaccines are potential vaccine candidates.

Reliability of Low-Cost Thermometers for Monitoring Foot Temperature

10:50 a.m. - 11:10 a.m.

Presenter: Kristen Doolittle

Moderator: Deborah Wendland

College/Discipline: College of Health Professions

Diabetes prevalence is high and often burdens the economically disadvantaged. With the risk for foot complications in those with diabetes, foot temperature monitoring can help lessen ulcer risk. Higher cost thermometers have been validated. Validation of lower cost thermometers could improve access for the underserved. Purpose: To assess device repeatability, reliability, and ease of use. Methods: 3 inexpensive infrared thermometers were compared against a reference thermometer for repeatability. Rater reliability was assessed by 2 raters using 3 trials at 3 sites across 25 subjects. Feasibility was assessed by subjects ranking the thermometers after testing them. Data Analysis: Descriptive statistics were used for device repeatability. Intra-class correlation coefficient was used to assess rater reliability. Results: Device repeatability: single day coefficients of variation (CV) ranged from 0.20%-0.91%; all days CVs ranged from 3.32%-4.69%. Rater reliability: 25 subjects (49.6±15.8 years). Intra-rater ICC was 0.99 for researchers and thermometers. Inter-rater ICC was 0.965 - 0.975. Thermometers were ranked based on comfort, handling, size, and the light presence. Discussion: Reliability and repeatability of thermometers were good and measurements correlated strongly with the reference. The subjects had little difficulty using the devices. Conclusions: Inexpensive, commercially available infrared thermometers can be a reliable/valid way to assess local skin temperature.

Establishing a School Counselor Program Evaluation Taxonomy: The Contribution of Proposed Competencies to School Counselor Data Beliefs and Practices

11:10 a.m. - 11:30 a.m.

Presenter: Jordon Beasley

Moderator: Morgan Kiper Riechel

College/Discipline: College of Professional Advancement; Department of Counseling

The purpose of this study was to further investigate the relationship between the instruments identified by Köse and developed by Maras et al. (2013), Atramovich (2016), and Dimmitt et al. (2007) to provide validation to the proposed taxonomy of program evaluation competencies for school counselors. Theoretically, these instruments should be highly correlated as they all claim to measure some aspect of program evaluation competencies among school counselors. To date, no research has been conducted to establish construct or criterion validity among these instruments. Furthermore, this study sought to determine if a predictive model could be created to predict school counselor program evaluation competence based on the school counselor program evaluation field-specific, technical and non-technical competencies outlined in these instruments. Results of the correlational analyses indicated significant, positive relationships between the independent instruments further establishing criterion validity for these instruments as valid measures of program evaluation competence. Results from the linear regression indicate that these instruments account for 59.4% of the variance in school counselors' data beliefs and practices regarding data usage. Further, these findings establish construct validity for the EPS, PEISA, and EBSCP-SA. Results and implications for the field of school counseling and school counselor education are discussed. Limitations for the study and suggestions for future research are also presented.

BREAK

11:30 a.m. - 11:40 a.m.

Utilization of a Resource Toolbox to Increase HCV Screening and Testing in Rural Primary Care Clinics in Georgia

11:40 a.m. - 12:00 p.m.

Presenter: Mary Draucek

Moderator: Humberto Reinoso

College/Discipline: Georgia Baptist College of Nursing

Hepatitis C (HCV) is the most common blood borne infection in the United States affecting over 3.5 million Americans. Most people are asymptomatic and do not know they are infected. Chronic HCV infection leads to liver disease/failure, fibrosis, cirrhosis, and liver cancer increasing mortality and morbidity, not to mention an increase in healthcare costs and need for liver transplantation. There is no cure for HCV, however, with prompt diagnosis HCV can be treated with an over a ninety percent cure rate. The problem is that HCV is not routinely screened nor tested for in the primary care setting, with incidental finding occurring secondary to elevated liver enzymes. Studies have indicated that providing an HCV educational session and introduction to a resource toolbox, increases HCV screening and testing in the primary care setting.

Odd Woman Out: Women in Non-Traditional Post-Secondary Career and Technical Education

12:00 p.m. - 12:20 p.m.

Presenter: Renee Pellom

Moderator: Dina Schwam

College/Discipline: Tift College of Education

The approval of legislation in the United States granting women equal entry into non-traditional career and technical education (CTE) career fields has not guaranteed their equitable inclusion into non-traditional career fields. In general, government, education, and industry leaders have not been successful in their attempts to adequately recruit, retain, and provide necessary supports for females to enroll in and remain in non-traditional post-secondary CTE careers. The purpose of this study is to describe the lived experiences of current and post-graduate women in post-secondary non-traditional CTE. This description of their experiences of navigating a predominantly male environment is considered through the lens of autonomy, competence, and relatedness in self-determination theory.

The researcher utilized a qualitative phenomenological line of inquiry to understand and describe the under-told experiences of the participants. A purposeful sampling strategy was used to recruit 11 adult women (18 years or older) who were current students or recent graduates from a non-traditional CTE program in the last 18 months. Participants who were graduates were required to be currently employed in their field of study. The researcher engaged in semi-structured one-on-one interviews and utilized strategies to address data credibility that included transferability of the data by way of a thick, rich description, triangulation, engagement in reflexivity, verification through an audit trail, and utilization of external auditors. Results of the research show that participants were highly motivated, self-determined individuals who actively engaged in multi-dimensional behaviors that expressed a marked sense of autonomy, competence, and relatedness throughout their academic, professional, and personal lives. The women utilized diverse forms of strategy and dynamic engagement to aid them in navigating relationships with individuals at their schools, on their jobs, and among family members and friends. Most women identified physical or interpersonal challenges at school or work because of their gender. They also reported ultimately forming positive relationships with many of the men around them, but several women continued to lack needed physical and social supports. Recommendations for future research include utilizing participant observations, and conducting additional quantitative and qualitative studies with women from diverse non-traditional post-secondary CTE careers and institutions.

Does the Use of Health Apps to Monitor Hypertension Improve the Knowledge, Attitudes, and Practices of African-Americans towards Hypertension Self-Management and Active Management in the Healthcare Process?

12:20 p.m. - 12:40 p.m.

Presenter: Jacquetta Lindsey

Moderator: Awatef Ben Ramadan

College/Discipline: College of Professional Advancement; Department of Math, Science, and Informatics

Despite the many medical advancements available today, cardiovascular disease remains the leading cause of death in the African American community. Hypertension is considered the most modifiable cardiovascular disease, and African-Americans are disproportionately affected by this disease – 43% compared to 28% of White Americans. The aim of the study was to determine if the knowledge, attitudes, and practices (KAP) of African-Americans towards hypertension self-management and active engagement in the healthcare process improved with the use of a mobile health application to monitor their condition. Study participants were recruited from community-based resources. Participants first completed a pre-survey to determine their baseline KAP. Next, they downloaded the AVAX Blood Pressure Diary to daily monitor their blood pressure. Lastly, participants completed the post-survey and system user satisfaction (SUS) survey on the blood pressure application. Majority of the participants were women (70%) with 50% on medication for their hypertension. Most of the participants (87.5%) believed that their hypertension was better managed after using the health app. The average SUS score for the hypertension mobile health application was 89.75. It appears that the mobile health application assisted participants with monitoring their blood pressure daily and being aware of changes that needed to be made to improve their self-management.

Investigating Seminary Training Preparation to Decrease Suicide Rates Amongst Pastors

12:40 p.m. - 1:00 p.m.

Presenter: Ashley Wood

Moderator: John Carroll

College/Discipline: College of Professional Advancement; Department of Leadership Studies

The purpose of this research study is to investigate how seminary or ministerial training can better prepare pastors to tackle their responsibilities to decrease suicide rates. The study analyzes qualitative research around the warning signs of pastoral suicide, how seminaries prepare and train pastors to address their mental health issues, and the interventions available to prevent pastors from engaging in suicidal behavior. The researcher uses the phenomenological study method to understand better the participants' experiences related to this phenomenon. Most seminaries do not offer mental health courses or resources to identify warning signs. Fortunately, most literature focuses on the relationship between moods of social isolation and opposing mental health effects. The absence of social or community support is closely associated with suicidal ideation. In promoting healthy behaviors, seminaries and ministries can equip pastors to articulate their emotional needs and insecurities to others before it is too late.

LUNCH BREAK

(1:00 p.m. – 1:30 p.m.)

Or join us for a working lunch: See details for Book Discussion Forum on next page.

BOOK DISCUSSION FORUM

1:00 p.m. - 1:30 p.m.

<https://mercer.zoom.us/j/5175941091>

***Think Again* by Adam Grant**

Moderator: Morgan Kiper Riechel

This year's featured book is *Think Again* by Adam Grant, Professor of Organizational Psychology at UPenn's The Wharton School. Dr. Grant's research focuses on ways to inspire individuals to rethink fundamental assumptions about motivation, generosity, and creativity. During the open forum discussion, various sections of the book will be discussed, reflecting on a series of discussion questions. During the Conference, faculty and students have the option to join the group open-forum for a discussion of ways to apply Dr. Grant's research findings to our various disciplines. Watch [Dr. Grant's TED talk](#) introduction on the habits of original thinkers, and join our conversation!

PROFESSIONAL DEVELOPMENT SEMINARS

Professional Development Seminars are open to any and all students and faculty across disciplines interested in learning more about various aspects of the research process. Subject matter experts in these topic areas will lead seminars in an interactive format designed to provide information and facilitate discovery and learning on these important areas of scholarship.

Using NVivo

1:30 p.m. - 2:00 p.m.

<https://mercer.zoom.us/j/5175941091>

Presenter: Carol Isaac, Tift College of Education

In this session, Dr. Isaac will discuss NVivo, a software program for conducting qualitative and mixed methods analysis. In addition, Dr. Isaac will share tips and best practices for using NVivo for analyzing data in research.

IRB at Mercer: Tips and Advice to Successfully Navigate the Process

1:30 p.m. - 2:00 p.m.

<https://mercer.zoom.us/j/6470848310>

Presenter: Ava Chambliss Richardson, Office of Research Compliance

Dr. Ava Chambliss Richardson will provide insight and advice on how to best navigate the Institutional Review Board (IRB) process at Mercer.

Using MTurk as a Data Collection Tool

2:00 p.m. - 2:30 p.m.

<https://mercer.zoom.us/j/6470848310>

Presenter: Kathleen Bazile, Educational Psychology and Special Services, The University of Texas at El Paso

This session will cover the benefits of using Amazon's MTurk as a valid and reliable data collection source. The presenter will discuss MTurk's overall benefits and potential limitations.

How to Choose a Poor Psychometric Instrument

2:00 p.m. - 2:30 p.m.

<https://mercer.zoom.us/j/5175941091>

Presenter: Justus Randolph, Georgia Baptist College of Nursing

Choosing a psychometrically sound instrument to utilize for a study is imperative for engaging in reliable and valid research. Dr. Randolph will share his experiences for engaging in quantitative research and important indicators to ensure a *poor* psychometric instrument is *not* included in your research project.

STUDENT SHOWCASE PRESENTATIONS

Spaciotemporal Analysis of COVID-19 to Study Impact of Mobility on Infection Rate

2:30 p.m. - 2:50 p.m.

<https://mercer.zoom.us/j/91731883104>

Presenter: Syed Hamza

Moderator: Shakeel Khan

College/Discipline: Stetson-Hatcher School of Business

Background: COVID-19's asymptomatic nature in some people makes it undetectable in initial days of contact and results in spread of the infection. Some countries have contained its spread, whereas some are still experiencing increasing cases. This study includes spaciotemporal analysis of COVID-19 and mobility data to provide insights in how the infection spreads while comparing the public mobility between the best and worst performing countries. Study Design/Method: The data about cases, recoveries, and deaths from Jan '20 to Feb '21 from John Hopkins-CSE is integrated with mobility data from Google. It is then analyzed at global level with further drilldowns into continent, countries, and states in US. Study includes comparative analysis between US and New Zealand to show which mobility parameters influenced the spread. Locations such as transit stations, retail, grocery, workspaces, residential areas, and parks were studied to find their impact. Findings: The analysis indicates that there was a short-term drop in mobility around workplaces, retail and grocery stores, and transit stores in United States along with a spike in the mobility across parks during the initial period. On the other hand, mobility has been under control in New Zealand. The study highlights that the areas with higher public activity shows higher infection rate, thus controlling the public movement around retail and grocery places has positive influence than complete shutdown of the workplaces.

Under the Law: The Invention of Race and Contemporary Lived Experiences

2:30 p.m. - 3:00 p.m.

<https://youtu.be/POlrwczZaZE>

Presenter: Laura Collins, Roxanne Ling, Frankesha Williams, & Gregory Crews

Advisor: Margaret Eskew

College/Discipline: College of Professional Advancement; Department of Liberal Studies

An initial exploration and analysis of colonial laws uncovered a pattern of diction and legal consequences used by the legislative authorities of colonial America to create divisions that still exist today. This research presents a selection of these laws and a sample of the ways they contribute to the auto ethnographies of twenty-first century Americans. A number of colonial laws provides evidence of the intentional and profit-motivated separation of the working class, in the 1600s, into two groups broadly defined as "white" and "non-white," then new ways of categorizing human beings. Those groups expanded into the racial categories recognized in the 21st century. This research analyzes components of those divisions and their contemporary reflections in the lives of three Mercer students.