College of Education
and
College of Behavioral, Social and Health Sciences

Spring 2016

April 20, 2016
12:00 pm – 4:30 pm
Hendrix Student Center
Special Acknowledgements

Each year, planning and implementing the Research Forum involves teamwork. The Forum’s Planning and Implementation Team of faculty, staff, and students ensures that important tasks, large and small, are completed to make the Forum evolve smoothly. To these people, we send a very special thank you. Their coordination and cooperation are incredible strengths for our Colleges.

On behalf of Dean George Petersen and the College of Education and Dean Brett Wright and the College of Behavioral, Social and Health Sciences, we take this opportunity to acknowledge the efforts of this team. Thank you for your contributions.

Research Forum Planning and Implementation Team

- Susie McGhee CBSHS Senior Associate Dean’s Office
- Karin Emmons CBSHS Department of Parks, Recreation & Tourism Management
- Kristen Lawson CBSHS Learning Resource Center
- Bobbi Curry CBSHS/CoED Center for Research and Collaborative Activities
- Virginia Baird CBSHS/CoED Center for Research and Collaborative Activities
- Betsy Clements CBSHS/CoED Center for Research and Collaborative Activities
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- Aris Hall CoED Student Support
- Chelsea Waugman CoED Student Support
- Kellie Walters CBSHS Student Support
- Morgan Tracy CBSHS Student Support

Thank you for your contributions to our Colleges and especially to the Research Forum.
Spring 2016 CBSHS/CoED Research Forum
April 20, 2016

AGENDA

11:00 a.m. – 12:00 p.m. PARTICIPANT SET-UP FOR POSTER PRESENTATIONS

12:00 – 2:00 p.m. ATTENDEE CHECK-IN, POSTER PRESENTATIONS AND REFRESHMENTS (Begin Viewing Posters)
Hendrix Student Center Ballrooms

2:00 – 2:15 p.m. CELEBRATION OF RESEARCH
Hendrix Student Center Ballrooms

Kathy Headley, Ed.D, Professor
Senior Associate Dean
College of Behavioral, Social and Health Sciences, College of Education

David Barrett, Ph.D., Professor
Associate Dean for Academic Affairs and Research, College of Education

Eric Muth, Ph.D., Professor
Associate Dean for Research and Graduate Studies,
College of Behavioral, Social and Health Sciences

2:15 – 2:50 p.m. FACULTY AND GRADUATE STUDENT AWARDS OF EXCELLENCE
Hendrix Student Center Ballroom

David Barrett, Ph.D., Professor
Associate Dean for Academic Affairs and Research, College of Education

Eric Muth, Ph.D., Professor
Associate Dean for Research and Graduate Studies
College of Behavioral, Social and Health Sciences

2:50 – 3:00 p.m. TRANSITION FROM POSTER PRESENTATIONS TO THREE MINUTE FLASH TALKS BY GRADUATE STUDENTS
David Peebles Room, Hendrix Student Center

David Barrett, Ph.D., Professor
Associate Dean for Academic Affairs and Research, College of Education

3:00 - 4:30 p.m. CBSHS/CoED THREE MINUTE FLASH TALKS BY GRADUATE STUDENTS
David Peebles Room, Hendrix Student Center

Khoa Truong, Ph.D., Associate Professor
Department of Public Health Sciences,
College of Behavioral, Social and Health Sciences

David Barrett, Ph.D., Professor
Associate Dean of Academic Affairs and Research, College of Education

David Fleming, Ph.D., Associate Professor
Director of Graduate Studies, College of Education

THANK YOU FOR YOUR PARTICIPATION IN 2016 CBSHS/CoED RESEARCH FORUM.
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The complete CBSHS/CoED Research Forum booklet with detailed abstracts can be found on the Research Website at [http://www.clemson.edu/hehd/research/research-forum/index/html](http://www.clemson.edu/hehd/research/research-forum/index/html).
Explaining Immigration Attitudes: An Experimental Comparison of the Economic versus Cultural Threat Hypotheses

Existing studies reach mixed conclusions about the importance of economic versus noneconomic concerns for determining individual attitudes towards immigration, with most concluding that the latter outweigh the former. However, much less is understood about the specific conditions under which cultural biases might override self-interest’s effect, or vice versa. To investigate this further, I conducted an original, cross-national survey experiment in Germany, Poland, the United Kingdom, and the United States to gauge how natives’ receptivity varies across combinations of immigrants’ religious affiliation and skill level. In all four countries, I find that citizens’ immigration opinions are primarily driven by economic motives; culture plays only a subsidiary role. These results elucidate important elements of the psychology behind the acceptance or rejection of foreigners while contributing to the ongoing debate over the extent to which material versus symbolic motivations drive individual attitudes and behavior.
Using Telehealth to Support Informal Caregivers of Elders with Urinary Incontinence

Introduction: Failure to effectively treat UI among the 38 million US adults over age 65, has been associated with decreased quality of life, increased morbidity, falls, nursing home placement, and $19 billion dollars in annual health related costs. The presence of UI among vulnerable elders (CRs) has been shown to adversely affect their informal caregivers (CGs) by significantly increasing the physical and psychological burdens of care. Although recommended, behavioral treatments are rarely prescribed and understudied in this cohort. Equally scarce are evidenced-based programs designed to support CGs delivering UI care. Telehealth technology has been effective in supporting CGs and elders in aspects of chronic illness management. Its effectiveness in supporting UI treatment has yet to be determined.

Method(s): A quasi-experimental, pre-posttest design was used to explore the feasibility and acceptability of a 6-week evidence-based, educational/skill building program delivered via tablet-personal computer with 2 main objectives: 1) develop CG knowledge about the management of UI; and 2) enhance CG skill set in prompted voiding strategies. CGs also received a supportive component in the form of individualized weekly telephone calls from a UI nurse expert. CR (% change in wetness) and CG outcomes (technology usage, burden, perceived ease of use, UI knowledge, and self-efficacy) were analyzed descriptively using a repeated measures approach. Qualitative feedback regarding CG perceptions of the intervention was obtained at study completion.

Results: Three CG/CR dyads enrolled and completed the study. Recruitment of eligible participants was a major challenge to feasibility. CGs consistently used the technology, though adherence to prompted voiding was inconsistent. CGs had slight improvements in UI-related self-efficacy, knowledge, and bother. CRs had a mean 62.53% decrease in wetness. CGs found access to a UI expert beneficial and rated the intervention highly.

Discussion & Conclusions: Telehealth systems may be a feasible and acceptable approach to deliver an evidence-based UI intervention and improve CG knowledge, confidence in UI management and CR wetness. Future studies should consider potential barriers to recruitment.
Can Repeated Hand Immersions in Hot Water Model Chronic Pain?

**Background:** In persons not suffering from chronic pain, increased blood pressure (BP) is associated with decreased pain sensitivity (blood pressure-related hypoalgesia, BPH). In chronic pain patients however, BPH vanishes. With increasing chronicity, the relationship of BP and pain even becomes positive – the higher the blood pressure, the higher the pain sensitivity.

**Methods:** To investigate the moderating effect of BP on tonic pain, we devised a new protocol using 117°F hot water immersions. 19 healthy participants (14 female; age 20.7±3.0) completed a sequence of five hand immersions of one minute each, with 30 second intertrial intervals. After 35 minutes, the sequence was repeated. Participants continually rated their pain (visual analogue scale 0-100). Resting BP, heart rate (HR) and high-frequency heart rate variability (HF-HRV, in 1 minute epochs during immersions) were assessed as proxies for autonomic function. Hierarchical linear modelling was used for analysis.

**Results:** All participants reported the stimulus as painful, with mean maximal ratings of 61.3±17.3. Over repeated immersions, substantial temporal summation of pain occurred. Early immersions showed an inverse relationship of systolic BP and pain, that is, BPH. This relationship systematically diminished and eventually turned into a positive association, with the effect carrying over between sequences (interaction of IMMERSION, SEQUENCE and systolic BP, p<.001). Autonomic measures show significant changes within but not between SEQUENCES.

**Discussion:** Our findings emulate the changing relationship between BP and pain in chronic pain patients. The protocol has potential as a model for chronic pain – more research is required to determine if similar physiological systems are involved. Candidates for the short-term interaction observed are the resetting of baroreceptor thresholds, short-acting opioid systems, or interactions with other top-down mechanisms like stress-induced analgesia.
Early Treatment for Neonatal Abstinence Syndrome: A Palliative Approach

Previously-described protocols for treating neonatal abstinence syndrome (NAS) designate pharmacotherapy as last resort, despite evidence that newborns suffer physical effects before medication is provided. To prevent severe symptoms in high-risk newborns, an innovative early treatment model was developed. The study objective was to describe this model and report associated medical, safety and healthcare utilization outcomes.

Charts were examined for infants (n=117) born in a large regional hospital between 2006 and 2014, and treated with the model in the Level I nursery. Primary outcomes analyzed were length of stay, adjunctive medication use, adverse medication and safety events, emergency visits and readmission rates, and total hospital costs and charges. Secondary outcomes and demographic factors were also examined.

For 117 treated newborns, mean length of stay was eight days. Two percent needed adjunctive medication; five percent experienced over-sedation. Ten percent experienced hospital safety events, including drops and unsafe sleeping with mothers. There were no medication errors or deaths. Within 30 days of discharge, 14% of infants visited the emergency department; 7% were readmitted, with two-thirds for reasons unrelated to NAS. Mean hospital costs per birth were $5,908.93, with mean hospital charges $10,946.96.

This study is the first to describe an early treatment model to prevent severe NAS. Our data demonstrate that the model may be safe, effective, low-cost, and feasible for replication. With further study, it may have widespread applicability and contribute to improving clinical outcomes for newborns at high risk for opioid withdrawal.
Cardiovascular Emotional Dampening, Threat Appraisal and Risk Behavior: Resting Blood Pressure Predicts Risky Driving in Women

Elevated resting blood pressure is associated with dampened responses to aversive stimuli. For example, higher resting blood pressure predicts subsequent reduced pain assessments, reduced emotional reactions to evocative photographic scenes, and reduced accuracy of emotion recognition in facial expressions and written narratives. This cardiovascular emotional dampening may also influence threat appraisal and, hence, motivation to avoid risk. There is some prior support for this in our findings of correlations between blood pressure and self-reported risk behavior. The present study was designed to determine if resting blood pressure is associated with risky driving behavior assessed in a high fidelity driving simulator.

Fifty one healthy women (n=20, age=28.6 years) and men (n=31, age=29.3 years) rested for systematic blood pressure determination both before and after a simulated driving scenario in a DriveSafety automotive simulator with six visual channels, single-axis motion, and functioning controls and instrumentation. Five minute by minute resting blood pressures were obtained both before and after the simulation with a calibrated Dinamap V100 oscillometric device. Averages of the three intermediate pressure values were used for analysis. Risky driving was assessed by a number of measures including speed relative to the posted speed limit and a time to collision index of tailgating.

Multiple regression analysis indicated that both speed violations and time to collision (tailgating) were significantly associated with pre-driving diastolic blood pressure in women [F(2,17)=5.097, p=.018], and marginally associated with pre-driving systolic blood pressure [F(2,170)=2.888, p=.083]. In contrast, post-driving blood pressures were not related to risk measures in women. In men, risk measures were unrelated to blood pressures.

These data suggest that higher resting diastolic, and to a lesser degree, systolic blood pressure measured prior to a simulated driving task is associated with more risky driving in women. These results are consistent with the notion that cardiovascular emotional dampening can reduce threat appraisal and increase risk behavior. In this particular context, the results are confined to women. Other social and psychophysiological mechanisms may obscure the relationship between blood pressure and risky driving in men.

In contrast, blood pressures obtained following the driving simulation have no significant relationship with driving risk, suggesting that risk-taking behavior does not directly produce blood pressure elevations. Future research should determine if central nervous system mechanisms controlling emotional responsivity and baroreflex set points produce both blood pressure elevations and reduced threat appraisal, or if baroreceptor visceral afferents dampen threat appraisal.
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**Multiple Identities and Multiple Experiences: A Sociological Investigation of Student Veterans in Engineering**

Sociologists have studied student veterans from a variety of perspectives and many of these investigations are quantitative in nature. Our research adds to these sociological investigations through our in-depth qualitative study of student veterans in engineering. Given the increase in student veterans, the diversity of this student group, and the growing national demand for engineering professionals, we hope to add to the literature on student veterans. Broadening the participation of veterans in engineering also offers the possibility of enhancing engineering’s diversity in many needed dimensions since, compared to civilian students, veterans are more likely to be older, first-generation college students, disabled, African American, or Latino.

Our comparative case study investigates the experience of student veterans in engineering at four institutions: University of San Diego (USD), North Carolina State University (NCSU), Purdue University, and Clemson University. Our main research questions are as follows:

1. Why do veterans pursue a Bachelor’s degree in engineering?
2. How do military experiences shape student veterans’ educational experiences?
3. What are the experiences of student veterans in engineering education?
4. How do institutions support veterans in engineering education?

We conducted focus groups at each of our study institutions (n=29) conducted at our four study institutions. We asked students about their military service, reasons for choosing the engineering major, the military’s influence on choice of major, their academic experiences, and their university’s efforts to serve student veterans. Preliminary results suggest that the participants did not receive much formal support for either choosing their major or for making the transition from the military to higher education. Additionally the veteran status was not as important, or visible, to this group of student veterans. Rather, their status as an older “non-traditional” student influenced their experiences the most. The results have implications for programs designed to widen engineering education pathways. The next stage of our research we will more fully investigate the influence of multiple identities on the participants’ educational experiences.
Experiences of Weight Related Discrimination among Pre- and Post-operative Bariatric Surgery Patients: The STIGMA Study

Introduction and Purpose: Current data indicate that nearly one third of the adult population in the United States is overweight or obese. Few efforts to change the direction of increasing weight have been effective. The negative attention that the phenomenon is receiving has increased the negative social perception of people who are overweight or obese, increasing social stigma and its negative effects. Weight-related stigma is widely held and endorsed, evidenced by reports of weight discrimination from family, friends, educators, employers, and medical professionals among individuals with obesity. The common belief is that shaming overweight and obese individuals will encourage behavior change, but research has repeatedly indicated that stigma has a negative effect on its victims. Experiences of weight-related stigma are potentially pivotal in an individuals’ decision to pursue bariatric surgery. The degree to which stigma is internalized may impact weight loss and maintenance post-surgery. The overall goal of this study is to explore the experiences of weight-related stigma among bariatric surgery patients before and after surgery.

Participants and Methods: Patients seeking bariatric surgery at Bariatric Solutions with the Greenville Health System (GHS) were asked to participate in the study. Participation includes completion of a series of self-administered surveys assessing experiences with weight related stigma and health related behavior. Assessment of personal health information such as body mass index, medication, medical, and surgical history, and personality inventory results and interview data collected by counseling psychologist’s pre- and post- surgery will also be conducted. Data are being collected at four time points: approximately one month (+/- 2 weeks) prior to surgery, and again approximately three, six, and twelve months after surgery (+/- 2 weeks) to allow for long-term assessment of experiences with weight stigma.

Status and Contribution to Science: To date, 102 patients have provided consent to participate in the study and have begun completing initial pre-operative questionnaires. Upon study completion, this will be the largest investigation of weight-related stigma of pre-operative and post-operative bariatric surgery patients. We anticipate completion of the study in early 2017.
Identifying a Pattern for Success: An Evaluation of the New Impact Program

**Introduction and Purpose:** Pediatric obesity has grown at an alarming rate within the past 30 years. Data from the National Health and Nutrition Examination Survey (NHANES) estimates that approximately 17% of children and adolescents are obese, marking a 12% increase from previous decades. South Carolina (SC) ranks 10th in the United States in adult obesity and the most recent data from the Centers for Disease Control and Prevention rank SC 2nd in childhood obesity for 10 – 17 year olds. Furthermore, obesity related medical comorbidities have been well established and often persist into adulthood. The purpose of this study was to assess behavioral patterns and factors that contribute to successful weight loss among children and families enrolled in New Impact, a comprehensive lifestyle based childhood obesity treatment program affiliated with the Greenville Health System. The overall objective of the current project was to develop treatment protocol recommendations to enhance retention while maintaining adherence to best practice guidelines and maintaining or improving outcome success.

**Participants:** The New Impact patient population consists of slightly greater than 50% Medicaid eligible and 50% ethnic minority families with children who exceed the CDC recommended levels for a healthy weight.

**Methods:** In this mixed methods study, preliminary descriptive analysis of patient participation data and patient BMI data was examined in conjunction with one-on-one semi-structured interviews to identify patterns and factors that contributed to success or attrition.

**Results:** Preliminary analysis indicated a meaningful increase in BMI reduction for participants who completed 7 or more treatment sessions as compared to those who complete 5 or few sessions. Participants identified program elements such as accountability, goal setting, and staff emphasis on listening, as well as, delivery features such as proximal delivery location as key to participation adherence. They also discussed the role of psychosocial, family engagement, and peer engagement factors in their participation and weight management. Participants also described difficulty in sustaining the behavior change with less frequent treatment visits later in the program. Program adjustments to enhance community-based elements as a means to strengthen social engagement and accountability components and lessen logistical burden may lead to increased program retention and enhance weight management.
Leisure and Positive Psychology: A Proposal for Increased Collaboration

**Purpose:** The creation of the new College of Behavioral, Social, and Health Sciences has afforded introduction to a wealth of new opportunities for faculty and students. Among these include conversations for professional development which previously might not have been considered. In this case, an informal discussion and a brainstorm between two faculty members in departments that are soon to merge with the organization of the new College resulted in the proposal of a special issue of *The Journal of Positive Psychology* on leisure. These two fields have the potential to introduce members of both disciplines to new perspectives and add value to current research agendas. They have much overlap in focus and topic, but little history of collaboration.

**Contribution of the Project to Advancing Research:** Positive psychology is devoted to the study of human flourishing, broadly defined to include both positive states of individuals (e.g., joy, flow, awe) and virtues displayed by individuals (e.g., courage, wisdom, justice). While positive states and human strengths have been studied extensively in settings in which people’s activities are dictated by others, such as the workplace (e.g., Linley, Harrington, & Garcea, 2013) and schools (e.g., Furlong, Gilman, & Huebner, 2014), relatively limited research has focused on the self-directed activities of leisure (Stebbins, 2015).

While the concept of leisure is widely reduced to “free time” in common lexicon, for scholars in the field, leisure encompasses much more. Countless proposed definitions suggest that leisure is “unobligated time, away from work, personal maintenance, evaluation and judgment, during which freely chosen and intrinsically motivated activities, both active and passive; social and solitary, are pursued for enjoyment and relaxation toward achieving a state of mind that supports rejuvenation, and contributes to overall quality of life, health, and wellbeing” (Schmalz & Blomquist, 2016, in press, pp. TBD). Issues of happiness, fulfillment, quality of life, and the well-being of individuals and communities are at the forefront of leisure research, and we propose that increased collaboration can further both fields. In this poster, we will outline some of the overlaps and progress to date, as well as outlining areas for future collaboration.

This special issue of *The Journal of Positive Psychology* with a focus on leisure will be published in 2018. The issue will consist of invited conceptual pieces from experts in the complementary fields, and submitted research manuscripts that consider issues of leisure within the perspectives of positive psychology. Manuscripts will be accepted for consideration in October 2016.
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**Modularity of Craniofacial Fluctuating Asymmetry as an Indicator of Demographic Changes in Mortality Patterns**

Craniofacial fluctuating asymmetry provides a marker of developmental instability and reflects the inability of an individual to buffer against environmental and genetic stressors during growth and development. In this study we examine secular changes in craniofacial fluctuating asymmetry in individuals born between the 17th and 20th centuries using landmark-based three-dimensional geometric morphometric methods. The samples come from the Farringdon Street collection in London and are representative of early colonial Americans. The American samples are from anatomical and donated skeletal collections of individuals born during the 19th and 20th centuries.

There were several important shifts in demographic parameters that occurred during the time period under study, including significant declines in infant and juvenile mortality. This study examines whether there is a significant change in the level of fluctuating asymmetry associated with the demographic transition. We examine whether the changes in infant and juvenile mortality patterns reflect modifications in growth and development related to developmental instability.

Results show that individuals born in the 20th century have significantly lower levels of fluctuating asymmetry compared to individuals born in the 19th century. Additional results examine modularity in the pattern of fluctuating asymmetry in three regional craniofacial modules that reflect differing developmental pathways. The cranial vault and facial morphology show a greater change over time in comparison to the cranial base. This pattern provides insights into when disruptions in developmental stability allows for a more precise characterization of how the timing of developmental disruptions changes during the period under study.
The Effects of Birth Satisfaction and Labor Choices on the Development of Postpartum Mood Disorders

Postpartum depression (PPD) is a type of depression that affects 10-15% of mothers within four weeks of childbirth. Previous research on PPD indicates that factors such as self-esteem, maternal competence, negative body-image, and spousal support contribute to the development of PPD. The symptoms of PPD include loss of interest in the baby, fatigue, and loss of appetite. This pilot study will test whether the use of Pretty Pushers maternity gowns during labor and delivery will decrease the incidence of postpartum depression in new mothers in upstate South Carolina. To determine the effectiveness of the Pretty Pusher gowns, scores from the EPDS and a birth satisfaction survey given 6 weeks post birth will be evaluated using inferential statistics to compare the experimental group of mothers wearing the Pretty Pusher gowns to the control group of mothers wearing hospital gowns. This research will determine if the ability to make decisions concerning labor will increase birth satisfaction and therefore decrease the likelihood of developing PPD. This research has been sponsored by Calhoun Honors College and the Creative Inquiry Program.
Modern LGBT Students: Navigating Issues of Well-Being in Higher Education

While some colleges and universities acknowledge the presence of lesbian, gay, and bisexual (LGB)—or sexual minority—students on their campuses, few institutions gather and maintain data on the numbers or needs of sexual minority students. With this in mind, we studied how modern LGBT students navigate issues of well-being in a higher education setting through a qualitative research process.

We distributed a survey to the listserv for the gay/straight alliance at a land-grant institution in the Southeast. We sent this demographic survey to find self-selected, volunteers to participate in our study. From this survey, we chose four individuals to participate in the interview process. These interviews were conducted with two of the researchers present. Voice recorders were used to document the interview.

The participants involved in our research included four students with varying identities however all self-identified within the LGBT community. The four participants all identified as cisgender and either lesbian, gay or bisexual. Heavy involvement was a common theme for all students who participated, spanning across several different on-campus organizations, involvement opportunities and varying leadership positions in their chosen organizations. Some involvement was academic while some was social. All participants were informed of the study via the campus Gay-Straight Alliance, thus all members were affiliated, though with differing degrees of investment, with the campus Gay-Straight Alliance.

The study offered useful and unprecedented information surrounding the holistic experience of LGBT college students. Several themes regarding LGBT student well-being emerged including a feeling of invisibility on campus in regards to sexual identity, the necessary creation of personal support and resources in response to the lack of established resources, and an overall happiness on campus despite not feeling entirely satisfied with their experience. Furthermore, the participants articulated an evident resiliency in response to the lack of resources through heavy involvement that fundamentally allowed them to achieve and sustain their well-being in the context of the university.

Applying this research to the larger context of higher education allows us to see several important implications for higher education professionals. The most recognizable implication is how much more research must be done regarding the experiences of LGBT students at colleges and universities. More research must be done surrounding the holistic experience of LGBT students and must extend beyond specific elements of their experiences or anecdotal narratives. Moreover, research must focus on the individual identities within the LGBT community as those experiences differ significantly despite being under the same umbrella term.
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School of Education

A Faculty and Staff Perspective: Reviewing Faculty and Staff Perceptions and Awareness of Student Veteran Needs and Available Campus Resources

Student veterans are a unique population on the campuses of colleges and universities nationwide. They bring impressive skills and knowledge, but also unique issues that the world of higher education is not always prepared to tackle. This research project uncovers what faculty and staff perceptions are of student veteran needs, as well as their knowledge of available campus resources for those students. Through the literature review, we acknowledge the voice of student veterans and what they perceive to be the current state of student veteran affairs in higher education. Through conducting this research, we were able to expand upon that knowledge and information available to institutions of higher education. Thereby, creating a new body of research on how colleges and universities can best advocate for student veterans and ultimately, how they can create a safe and flourishing campus culture for those populations represented within the student body.

A sample population of faculty and full-time student and academic affairs staff from a four-year mid to-large public, research, land-grant institution in the southeast was surveyed through Campus Labs. A majority of participants found services within psychological, academic, general, and student veteran specific services to be essential or important. Many participants, a majority being faculty, reported being unaware of specific services in each of the four categories. About half of participants were confident in both the institution and their individual ability to support student veterans, while less than a fifth had received veteran services training. These findings suggest that more research should be done to close the gap in knowledge for faculty and staff of essential student services, particularly those services specific to student veterans.

Keywords: Student veterans, Perceptions, Campus resources, Allyship, Faculty, Staff
Therapeutic Hypothermia

Therapeutic hypothermia (TH) is a treatment that has improved patient outcomes after cardiac arrest. Cooling a patient’s core body temperature has proven to reduce brain edema, thus reducing neurological complications associated with a cardiac event. The purpose of this study is to identify variables that will improve therapeutic hypothermia outcomes in post-cardiac arrest patients, therefore creating a standardized TH protocol nationally. Variables include patient demographics, clinical characteristics, the cardiopulmonary arrest event, recovery post three months by Cerebral Performance Categories (CPC) score, cooling temperature, as well as a variety of lab values collected throughout the span of the treatment, including neuron-specific enolase (NSE) values. Subjects are cardiac arrest patients at Greenville Memorial Hospital (GMH) that have undergone TH. Our study is a retrospective observational cohort study, thus existing data from charts from the coronary care unit at GMH were used to collect data.

Current findings are still in progress. While it is not likely that the participants in this study will receive any direct benefits, the knowledge gained will be greatly beneficial to the researchers, healthcare providers, and society as a whole. The analysis of the collected data will result in a better understanding of therapeutic hypothermia and the factors that produce favorable outcomes, which will empower healthcare providers and hopefully serve to save the lives of future patients.
The Evaluation of the Greenville Health System Council Girls on the Run Program

The purpose of our study is to evaluate changes in 5 youth development variables and three physical activity variables among elementary age girls participating in the Girls on the Run (GOTR) program. GOTR is a non-profit comprehensive Physical Activity-Based Positive Youth Development (PA-PYD) program that provides a foundation for a healthy lifestyle. GOTR’s underlying theoretical model is Lerner’s Five C’s of youth development. The Five C’s are Character, Caring, Competence, Confidence and Connection and are the core to the GOTR curriculum. The curriculum is composed of 22 lessons taught by certified GOTR coaches over 12 weeks. The GOTR program was developed to address and reverse the decline in physical activity that occurs in girls from childhood through adolescence. The program targets girls from ages 8-13 and combines training for the final 5k event (3.1 mile) with a set curriculum that promotes positive emotional, social, mental, and physical development. We used a pre-post intervention survey design with girls at 13 sites across Greenville, Pickens, and Laurens counties. The survey consisted of 26-item paper-and-pencil questionnaire. The survey measured eight different variables. Six variables consist of the sum of three questions with response options ranging from 1 to 5. These variables include confidence, self-efficacy/physical activity, connection, character, caring and community. In addition, the last two variables were based on screen time and physical activity time with response options ranging from 0 hours to 5 hours. There were also demographic questions such as age, birthdate, race/ethnicity, current grade, and number of times a girl participated in the program. One hundred and thirteen participants completed both pre and post questionnaires and were included in the final analysis. Data were entered into the SPSS software system. Descriptive statistics were used for demographic characteristics and the pre and post-intervention values for all eight variables. One-sided paired sample t-tests were used to compare mean differences in pre and post-intervention values. The Spring 2015 GOTR Participants were predominately Caucasian (81.4%), followed by African American (13.3%), Hispanic (7.7%), and Other (2.7%). Statistically significant changes in pre and post intervention means were observed for self-efficacy of physical activity (p=.012) and physical activity time (p=.006). P values less than 0.05 were required for statistical significance. There was also a positive mean change in confidence, caring and community variables but the results were not statistically significant. Our results indicate statistically significant positive changes related to two physical activity variables. However, statistically significant changes of the 5-C’s were not observed.
Exploration of the Impact of Social Media on the First Year College Student Transition

Social media is widely used among college students, but there is a gap in the literature on how it influences first year students and their transition to college. The purpose of this study was to investigate any link that may exist between a first year student’s use of social media and that student’s feeling of connection to campus. To conduct this research we used qualitative data collected in focus group settings from first year students in their second semester at a large, public, land-grant university in the southeast. We found three overarching themes in the students’ social media usage.

- The students sought information about what interested them and the topics that were currently trending.
- The students downloaded new social media after arriving on campus.
- The students self-reported their increased connectedness to others and the university.

We also found that social media usage was so commonplace in the students’ daily lives that they did not credit or acknowledge this usage as impacting their transition to the institution. This research benefits practitioners in the orientation, transition, and retention fields as well as individuals who work in student engagement and public relations for institutions of a similar type.
Bridge Programs and Student Engagement

Statistics show that approximately 60% of college students attend more than one institution. The purpose of this study was to determine if there are differences in student services engagement and sense of belonging between students who matriculate into a four-year institution via a year-long bridge program and those who transfer through the typical transfer admissions process. In order to fill the gap in literature on transfer students’ experiences with bridge programs, our study surveyed students in order to gather self-reported data on student engagement and sense of belonging. In our study, we observed that bridge students are more engaged socially while non-bridge students engage more academically with the four-year institution. Additionally, bridge students reported more positive senses of belonging to the four-year institution compared with non-bridge students. Further research could explore the cause-and-effect relationship between bridge programs and student engagement now that an observational difference has been established.

*Keywords:* Transfer students, Bridge programs, Retention, GPA
Mapping Bikeable Environment in Taipei City: 
A Spatial Tool to Analyze Cycling Friendly Environment

Bicycle riding is a worldwide phenomenon, not only as a means of daily commuting, but it is also a stylish leisure, recreation, and tourism activity (M. J. Lamont, 2014; Ritchie, 1998). This is also true in Taiwan. Since 1998, cycling has become the most prevalent recreational activities on this island (H.-W. Chang & Chang, 2003; Lee & Huang, 2014). In the past two decades, the Taipei City government has focused on building recreational-based bike lanes along the river. Additionally, in an effort to lessen traffic congestion and air pollution, the government has tried to establish a sustainable mobility network to integrate cycling into the commuting and short-haul transit system (Chang, 2008). As part of this effort, the bicycle sharing system, YouBike, was launched in Xinyi district in the spring of 2008 (YouBike, 2016b). To date, YouBike use has experienced 4.87 million users and more than 56 million trips (YouBike, 2016a). Unfortunately, compared to the popularity of riding public bicycles in Taipei, there is relatively little academic research on YouBike. Little is known about factors that inhibit individuals from riding public bicycles and what incentives or changes might encourage additional use.

Various attributes of the built environment have been identified as significantly associated with cycling behavior. Bicycle infrastructure, including length and number of bicycle lanes, the availability of bicycle facilities, and proportion of separated bicycle pathways is one of the determinants of cycling behavior (Buehler, 2012; Heinen et al., 2010). This study attempts to build a spatial tool that identifies physical environments that are associated with YouBike behavior in Taipei City. YouBike use data obtained from Taipei Open Data Platform (http://data.taipei.gov.tw/) was used in conjunction with a geographic information system (GIS) to map the cycling environment across the Taipei City region. The results indicate that Zhongshan, Da’an, and Xinyi Districts have the most cycling friendly environments; while, Shilin District has the least bikeable environment.

This study and the resulting spatial tool have several potential applications. For example, the bikeable environment map can guide local action to improve bicycle facilities. Furthermore, it uses commonly available data types, thus facilitating easy application in different areas. It also can be used to identify areas of high and low cycling friendliness for studies focused on the relationship between cycling behavior and the built environment. Future research should identify other components, such as weather, land use, topographic characteristics, and bike lane connectivity.
Employment Status and Health: Basic Access as a Mediator

Employment status has been widely studied as an employment-related economic stressor, and the consequences of unemployment are well documented by a large body of research linking unemployment to physical and mental health. The current study extends the binary distinction between employment and unemployment to include both voluntary part-time workers and involuntary part-time workers. The differential and relative effects of each employment status on health outcomes will potentially provide meaningful information to practitioners for their intervention efforts and will help occupational health psychologists develop more refined conceptual models of work-health relationships. Our study also extends the current literature by investigating basic access to different types of resources (i.e., financial, community and healthcare) as mediators of the relationship between employment status and well-being.

The current study utilizes survey responses collected by Gallup in 2011 and 2012 using the Gallup-Healthways Well-Being Index (WBI). Our final sample consisted of 395,374 respondents, among which 277,125 (70.1%) were fully employed, 52,608 (13.3%) were working part-time voluntarily, 34,883 (8.8%) were working part-time involuntarily, and 30,758 (7.8%) were unemployed. The mean age was 47.33 (SD = 16.25) years old, and a majority of respondents were White (74.8%) and males (54.5%). To assess basic access and well-being, we used the WBI components, including life evaluation, physical health, emotional health, healthy behaviors and basic access.

Results indicate that full-time and voluntary part-time workers reported significantly greater access to resources and better health outcomes, followed by those who are involuntary part-time workers and unemployed. Individual mediations indicate that the three mediators indirectly (partially) explain the pathways between employment status and health outcomes. These results suggest that the deprivation of both manifest and latent benefits associated with work status can play an important role in both a person’s physical and mental health. Moreover, individuals working at their desired employment level (full-time and voluntary part-time) tend to perceive lower levels of resource deprivation and experience better health and well-being outcomes.

Our results suggest that economic stress, specifically employment status, continues to play a role in workers’ health and well-being. The understanding of the pathways between work and health (via basic access to resources) can provide researchers and practitioners with information regarding potential intervention efforts in reducing economic stress and promoting employee health and well-being.
Experiences of Students of Color in a Student Affairs Master’s Program: 
A Qualitative Research Study Examining Recruitment, Retention, and Transition

The purpose of the study was to examine factors that affect recruitment, retention, and transition of students of color into a student affairs master’s program. This study was completed through in-person, semi-structured interviews with students at a large, public, predominantly white, land-grant institution in the southeastern United States. The students we interviewed were all in their first year at the student affairs master’s program at the institution. The participants were matched up with two of the researchers to conduct the interview. The interview focused primarily around the areas of recruitment, transition, and retention.

Our results indicated both positive and negative themes among our participants. Positive aspects of retention, transition, and retention were found to include: knowing someone in the program beforehand, finding supportive mentors, staff, and other students of color. Negative factors in recruitment, transition, and retention included: feelings of deception, isolation, hostility, and a lack of support from white classmates. Faculty members could play either positive or negative factors in students of color’s experiences. As a field, we can best serve our students of color by providing: honesty when recruiting students, incorporating discussions of social justice and current events in the classroom, seeking diverse faculty members, and having faculty members intentionally connect with students of color.
Effects of Ethnicity and Breastfeeding on Aggressive Breast Cancer Phenotype

**Purpose:** This study was aimed at examining the relationship of ethnicity, breastfeeding, and aggressive breast cancer phenotype in a high-risk population.

**Problem Statement:** Previous research has found that while African American women have a lower prevalence of breast cancer than Caucasian women, they have a higher mortality rate. This is due to the higher incidence of triple negative breast cancer in African American women, which is the most aggressive subtype of breast cancer. Our study seeks to identify risk factors that may predispose African American women to triple negative breast cancer.

**Description of Subjects:** Each subject considered in this study has received genetic counseling and care at the Bon Secours St. Francis Health System Cancer Clinic in Greenville, SC.

**Methodology:** Using NCCN as a framework, chart data was collected from 600 high-risk breast cancer patients, in which a total of 289 patients were included during a retrospective chart review. The data was then confirmed with a second review, de-identified with numerical codes and password secured in a Word Excel document. The data is currently being analyzed using the SPSS analysis tool.

**Summary of Findings:** Data is under final analysis using SPSS. Preliminary results suggest a relationship between African American women, lack of breastfeeding and the incidence of aggressive breast cancer, specifically the triple negative phenotype.

**Implications of Practice:** There seems to be a relationship between African American women, the influence of no breastfeeding, and the development of the aggressive breast cancer phenotype. Further studies need to be developed to identify cause. With the data analysis so far, we have deducted that innovative educational opportunities with strategies for implementation need to be developed regarding the importance of breastfeeding to decrease the occurrence of triple negative breast cancer.
CU Succeed: Incentive Wellness Program for Pregnant and Parenting Teens

The purpose of this research is to create an incentive based program in CU (Clemson University) Succeed for parenting and pregnant teens in Oconee County, SC. The main objective of this research was to create an effective program that enhances the pregnant or parenting teen’s educational attainment, social interactions, and overall health. Using an online incentives program to reward certain behaviors monthly, the CU Succeed program aimed to encourage a healthy lifestyle and reinforce educational behaviors thus enabling these teens to have a better well-being.

The research team used a systematic, theoretical analysis of the methods of implementation to document how the incentives program was being established and how its efficacy would be measured. This research was not based on the evaluation of data, but rather the efforts to create the incentives program from the beginning. A written methods procedure was used to highlight the steps taken by the research team.

After the CU Succeed program was created in April 2014, there was a lack of program interest from parenting and pregnant teens. Teens felt less inclined to participate because the program was so broad, focusing on many different aspects of health and was not individualized to their specific needs and lifestyle. Research is available about the need for programs for this population, but not enough research about the format of existing programs and their resulting success or failure. CU Succeed aimed to fulfill the need for research in this area. Sponsors for this program have been the Calhoun Honors College and the Creative Inquiry Program.
Communicating the Value of the Fraternal Experience to Non-Greek Parents

The research team in this study conducted a qualitative inquiry into the communication of the value of the fraternity experience between undergraduate fraternity men and their parents. This research was conducted at a midsized, public, land-grant institution in the southeastern United States. Fraternity members make up approximately 12-14% of the university undergraduate population.

Researchers interviewed four men who were responded to electronic survey determining them to be eligible participants in the study. All of the subjects identified as leaders—either currently or previously holding positions in their fraternity and in at least one other campus role. All interviews were semi-structured and consisted of approximately 15 questions asked by two members of the research team during individual interviews. Data was analyzed and coded for themes.

The research study revealed strong themes that impacted participant communication with their parents around three topics. The first finding was that students spoke more of the tangible action items of their leadership positions, such as planning events, rather than soft skills learned. The second finding stemmed from the relationship men have with their parents. The research showed that parents did not have influence in the men’s decision to affiliate with a Greek chapter, or in many of their college related decisions. Finally, researchers observed a strong correlation between both student and parent preconceived notions of fraternity and how those notions impacted student-parent conversations about their fraternity membership.

This study found that fraternity men do not think explicitly about the value of their fraternity experience nor do they actively work to communicate it with parents. The study also concludes that outside factors which influence individual’s understanding of fraternity play a role in shaping conversations that students and parents are having. The study also revealed that fraternity parents do not typically change their perception of fraternity during their students’ experience.
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Persistence & Academic Success of First-Generation College Students
in Living-Learning Communities

The factors that influence first-generation college student retention are trending topics in higher education, with scholars such as Engle and Tinto (2008) arguing that special programming and engagement activities are two efforts that aid in student retention. However, current research has not adequately addressed how involvement in different types of living-learning communities (LLCs) might impact the success and retention of these college students. Our study addressed the issue of first-generation student academic success and retention with special attention to involvement in LLCs designed specifically to meet the needs of first-generation college students. We analyzed pre-existing data collected from first-generation students participating in LLCs in order to determine if participation in these environments yielded higher retention rates and academic marks. We compared the data from students participating in other academic-focused and special interest communities in order to reveal which type of community was most beneficial for first-generation student success and retention. Although the results of our study were inconclusive, the need for further research is imperative. Our hope is that this study will open the door to more conversations on how to engage and retain first-generation students.
Marketing and Recruiting International Graduate Students in Higher Education

There are currently approximately two million students who choose to pursue higher education opportunities outside of their home country, a figure which is anticipated to increase to over eight million by the year 2020. Of those students, over a quarter choose the United States as their education destination of choice, making the United States the most desired destination for international students. As funding for higher education slows and tuition rates continue to rise, the economic impact that international students have on a university cannot be underestimated. As competition for international students increase, an understanding of the factors which lead them to choose an institution must be understood as the groundwork for successfully marketing and recruiting international students.

A quantitative study was conducted to determine how international students, defined as students born and raised outside of the United States and do not hold American citizenship, came to be aware of a specific land grant, public institution located in the South. The survey was inclusive of seven multiple-choice questions ranging in content to indicate whether the institution was their first choice, a ranking of factors which played into their decision to attend, and how they initially heard of the institution.

At the time of writing, results remain pending; however, a detailed analysis will be conducted to conclude what patterns of behavior may lead international students to choose a certain institution and further, what marketing techniques are most successful in recruiting such students to the institution. Further implications for the study include reviewing current standards of recruitment in order to increase application and enrollment figures.
Crowding and visitor conflicts are among the most fundamental and important areas of research in outdoor recreation (Manning & Valliere, 2001). Among the many studies that address the relationship between high use and user conflicts to visitor satisfaction, outcomes have surprisingly and consistently reported that satisfaction remains relatively high despite increased reports of undesirable conditions (Shelby, Bregenzer & Johnson, 1988; Manning, 2011; Manning & Valliere, 2001). Therefore, entire bodies of literature have emerged to explore causes of conflict among users, and how visitors cope with potentially stressful recreation experiences (Jacob & Schreyer, 1980; Lazarus, Kanner & Folkman, 1980). Such research suggests that visitors adopt a variety of coping mechanisms in an attempt to achieve desired benefits from their recreation experience (Graefe, Vaske & Kuss, 1984; Heberlein & Shelby, 1977; Jacob & Schreyer, 1980; Schneider & Hammit, 1995). However, causes and outcomes of adopting different coping mechanisms have remained inconsistent, and largely reliant on intended changes, rather than actual changes, suggesting the need to explore new methods and approaches to understanding coping strategies in a protected area setting.

While several different types of coping mechanisms exist; including cognitive and behavioral shifts, this study will focus on the behavioral changes that are adopted in response to a negative experience, referred to as displacement. As part of a larger visitor-use study at Delaware Water Gap National Recreation Area (DEWA), it was identified that nearly 10% of visitors had been displaced from their desired destination due to overcrowding during the summer of 2015. This study proposes to adopt GPS technology and qualitative interviews at DEWA to document actual changes in behavior, and to capture the reasons for, and decision-making processes that occur when visitors choose to move from one area to another. Prior research shows that overcrowding is a large motivator for modifying or changing recreation behaviors in a park setting (Arnberger, Haider, Eder & Muhar, 2010). Therefore, use displacement in recreation area settings should be of concern for managers, planners and researchers interested in sustainable protected area management.

While displacement behaviors in park settings have been documented, limitations exist and it remains difficult to capture due to challenges associated with reaching visitors who may have already been displaced and are no longer visiting the protected area. By presenting a proposal at this forum, I hope to collaborate among professionals to gain ideas for capturing actual displacement and reasons for such behavior.
Empathy and Extracurricular Involvement in Emerging Adulthood

Empathy is a foundational construct for emerging adults entering college as they explore their identity in the areas of love, work, and worldview. Empathy is associated with a number of prosocial outcomes, and is a quality sought after by diverse employers. A recent meta-analysis showed that empathy has declined among American college students in recent decades, but the malleability of empathy over the full course of the college years has not been studied in the existing literature.

This study sought to explore the malleability of empathy in emerging adulthood, and to determine if extracurricular activity involvement significantly predicted changes in empathy during the college years. Data for this analysis came from a longitudinal study of college males at a large, public, southeastern university studying sexual aggression across the college years. A total of 471 students, ranging in age from 18-21 during their freshman year, completed self-report surveys in the spring of their first through fourth years of college in 2008-2011.

Empathy was measured using Perspective Taking subscale scores from the Interpersonal Reactivity Index, a widely used measure of empathy. Changes in empathy over the course of the college years were explored to determine the malleability of empathy during emerging adulthood. Repeated measures analyses of variance were conducted for involvement in eight extracurricular activities and empathy scores over the four years of college.

Just over half of participants’ empathy scores remained in the same category (low, moderate, or high) during their first and fourth years of college (54.8%, N=258). However, more than one fourth of participants’ empathy scores increased to a higher category (28.7%, N=135), and 16.6% of participants’ empathy decreased (N=78), suggesting that empathy is malleable during the period of emerging adulthood. Repeated measures analyses of variance revealed that there was differential change in empathy based on high vs. no involvement in an academic club/honor society, \(F(2, 468)=8.28, p<.001\); based on high vs. no involvement in having a job, \(F(2, 468)=2.18, p=.015\); and based on any vs. no involvement in a fraternity \(F(1, 469)=5.99, p=.015\). Involvement in an academic club and employment predicted positive changes in empathy, whereas fraternity involvement inhibited empathy growth.

Given extant literature showing significant correlations between empathy and a variety of prosocial and employment outcomes, empathy development of college students should be a matter of importance for educators, administrators, and other stakeholders in higher education. Findings of this study suggest that empathy is malleable among college students. Promotion of involvement in positive extracurricular activities which expose students to new peers and ideas, such as an academic club or employment, may offer promise in fostering improved empathy among college students.
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Differentiating Responsible Tourism Classifications: A Typology

Tourism has produced positive and negative impacts on destinations, their inhabitants, and the natural environment. Some tourism operators have employed business practices that are environmentally, socially, and economically responsible and inflict minimal negative impacts, which have created multiple tourism markets offering a variety of leisure experiences. Although not used to categorize forms of mass tourism, travel involving tens of thousands of tourists, it should be noted that some forms of responsible tourism may be considered mass due to operational practices. The purpose of this conceptual research was to develop a typology of responsible tourism markets and classify them respectively based on operational characteristics. This typology was approached through inductive methods in which two constructs, Sustainability Dimension Participation (SDP) and Mindfulness, were examined to compose the responsible tourism classifications. SDP is characterized by sustainability and is the level at which a tourism organization offers products and services with regards to the three pillars of sustainability including: environmental, economic, and socio-cultural impacts. This research defines mindfulness as a keen sense of awareness in which an individual makes objective conscious decisions in their selection of goods and services and has empathetic concern for social and natural constraints. The integration of the constructs composes of four quadrants of responsible tourism: globally-conscious/aware, pro-naturalists, aestheticists (ism), and nature-related experiencers. While there is overlap of characteristics among the forms of responsible tourism, this typology aims to demonstrate how conscientiousness amongst tourism operators and tourists and the sustainability dimension influencing the tourism activity target authenticity of global sustainable tourism (ST). As well, it may offer insight into understanding which classification has a greater influence and informs approaches toward the achievement of global ST.
Increased diversity among college and university faculty is needed to support a more diverse student body and to prepare all students to succeed in a more global society (Harper & Hurtado, 2007; Turner, Gonzalez, & Wood, 2008; Smith, 2015). Currently, women of color account for only 22% of full-time instructional faculty with most concentrated at lower faculty ranks and outside of research institutions (Delgado Bernal & Villalpando, 2002; United States Department of Education, 2015, March). Women of color who choose to enter the faculty realm are met with various barriers that limit their advancement and create hostile environments in which to work (Collins, 1986; Griffin, Bennett, & Harris, 2013; Sanchez-Hucles & Davis, 2010; Turner et al., 2008).

The purpose of this study is to explore the intersections of tenured faculty women of color’s individual characteristics and their institution’s structures and climates. The result of this study will be a model that describes the elements that lead to the successful achievement of tenured status for faculty women of color at research institutions.

The participants of this study will include tenured women of color faculty members at predominantly White, public, research institutions in the southeastern United States. These are faculty members that identify as female and American Indian, Asian, Black or African American, Hispanic or Latina, Native Hawaiian or other Pacific Islander, or a combination of two or more races. Participants must be U.S. residents.

Constructivist grounded theory (CGT) is the methodological framework for this study. CGT is appropriate for this study in order to create knowledge through exploration of the lived experiences of study participants (Charmaz, 2014). Little is known about the experiences of women of color in higher education and this qualitative approach provides an opportunity to explore and report on those experiences (Croom & Patton, 2011; Stanley, 2006). Through a series of semi-structured interviews with research participants, the researcher will create a model to describe the experiences of these participants. Snowball, purposive, and theoretical sampling methods will be used to achieve maximum variation among participants across race, rank, discipline, and institution location.

The proposal for this dissertation research was successfully defended in February 2016. Currently, the researcher is conducting a pilot study with tenured faculty women of color across the United States. Formal data collection for the dissertation study will begin in May 2016.
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Brand Image Re-Creation through Social Media Communication during Paris Terror Attacks

Information shared through Social Media is becoming a source to alter perceptions of tourism destination brand images. The purpose of this study is to examine how social media platforms were utilized during November 2015 Paris terror crisis. The key issues to be explored include how social media is changing crisis communication, how traditional and new media are working together in a crisis for narrative construction of a destination image, and crisis communication planning for the future. While there is research on the development of branding destinations, there is little research done online on the process of brand image development concept. The aim is not just to understand what tourists associate the destination with, but also to define a relationship between the characteristics of users and destination image formation.

While the literature recognized the recent impact of technology on tourism experiences, empirical theoretical exploration remains scarce about how communication online shapes perceptions. Conceptual model builds on the Agenda Setting Theory because it looks at repetitions, sentiments and representations to understand the effects of mass media. Agenda Setting is the creation of public awareness and concern of salient issues by the media. In this research, Agenda Setting Theory is used to develop codes about existing algorithms on the online communication data that will reveal destination brand images. The analysis will involve massive and collective online social media public communication data. Methodology will be sequential mixed methods approach. The chosen methods to analyse data are qualitative and quantitative. The data will be extracted through Radian 6 software, which has been developed to achieve online data communication textual data. Content analysis is used to analyse data qualitatively. As well, the results of different descriptive statistics and exploratory and confirmatory factor analysis are used to indicate that online user-generated content exert important influences on re-creation of brand images. Ultimate aim is to understand terror impacts on destinations by constructing a conceptual model about new media information sources.

Purpose of this study is to advance agenda-setting theory as it relates to aggregate online communication behavior, while contributing to the debate on the future of media effects online. The anticipated results will yield the weight that different information sources exert in defining the overall information source construct. Thus, in this study adds web platform factors to explain the image formation and thereby moves beyond the influences of traditional, offline sources of information. The results of different descriptive statistics and exploratory and confirmatory factor analysis, will indicate that different websites, reflecting user-generated content, exert important influences and combine to form an information source construct. These findings in turn should offer several managerial recommendations as well.
Effects of Mammography Radiation on Breast Cancer Severity

Our purpose is to investigate biomarkers in women with breast cancer to determine if an increased number of mammograms correlate to an increased risk for breast cancer development. Our population consists of 600 women in the Upstate of South Carolina. These women have been seen at an inherited cancer clinic and meet the following criteria: Women considered high risk for breast cancer based on NCCN guidelines, and women considered high risk and currently have breast cancer diagnosis, also based on NCCN guidelines. The methodology used is a retrospective chart audit, convenience method with no manipulation, randomization, or controls. No significant results were found after data analysis. The results reiterate the current NCCN guidelines for high-risk women receiving mammographies and do not reflect any implications for practice. We would like to thank both the Calhoun Honors College and Clemson Creative Inquiry for sponsoring our research.
Urban Greenways and Crime: What Can We Learn from Chicago’s 606?

While urban parks provide a number of benefits to both individuals and the communities in which they reside, their impact on crime has been portrayed as both positive and negative. To answer this persistent question regarding the park-crime connection, we explored the effect of one type of urban park, an elevated linear trail (or greenway), on crime in adjacent neighborhoods. We focused on Chicago’s Bloomingdale Trail, nicknamed the 606, which extends 2.75 miles along Chicago’s Northwest side and passes through a series of diverse neighborhoods. Since its conception and opening in 2015, the 606 has been marketed by the city as a sustainable amenity aimed at relieving congestion and as a crime reducing and unifying mechanism between the vastly different neighborhoods. We used secondary data from the City of Chicago, the US Census Bureau, and Esri taken at two points in time: 2011 (before the trail was built) and 2015 (after the trail opened). We examined the relationship between the 606 and changes in localized violent, property, and disorderly crime over that four year period by comparing neighborhoods (i.e., census block groups) within ½ mile of the new 606 to similar Chicago neighborhoods without a unique linear trail, controlling for a number of potential crime covariates (e.g., poverty, education, median household, etc.). Using descriptive statistics, comparative t-tests, and regressions with crime as the dependent variable, our study found that trends in crime in census block groups along the 606 were not significantly different than those in similar Chicago communities. However, given the relative newness of the 606 and the cross-sectional nature of this study, not enough time may have elapsed in order for areas along the 606 to have been impacted by the trail’s presence. A future longitudinal study in the same areas surrounding the trail may yield more telling results. The fact that the 606 has not led to a significant change in crime may highlight a larger problem in the area. The differences in the socioeconomic status (SES) and racial composition among communities may be hindering residents from communicating, installing an ingroup-outgroup dynamic in neighborhoods along the 606. This happen when members of a particular group classify themselves based upon a set of characteristics and those not meeting those characteristics are seen as either inferior or a threat to the group. While parks have been shown as affective mechanism in growing social capital, studies have also shown that parks placed in communities where residents are distinctly different in terms of race and SES can act as barriers that segregate classes. Further research is needed in order to determine the impact of the 606 on the social identity and residential cohesion of residents living in the neighborhoods along the trail, which may ultimately impact crime in quality of life in greenway-adjacent communities.
Comorbidity Outweighs Obesity in Hospital Mortality among Bariatric Surgery Patients

**Objective:** With the increasing popularity of bariatric surgery among obese patients, many benefits are reported among bariatric surgery patients. But, severe complications exist, such as hospital mortality. In this study, we aimed to predict the important risk factors for hospital mortality (patients “expired” during hospitalization for weight-loss surgery) and patient’s BMI with or without adjustment for patient comorbidity.

**Methods:** We used an obese (BMI ≥30) adult subsample of weight-loss surgery visits from the Premier Healthcare Database 2011-14. ICD-9-CM procedure codes were used to identify weight-loss surgery cases, ICD-9 diagnostic codes were used to identify comorbidities and BMI categories, and discharge status (“expired”) was used to define hospital mortality. The association between the hospital mortality (dependent variable) and BMI categories 30-35, 35-40 (reference group), and >40 were examined in a multivariable logistic regression adjusting for age, gender, race, marital status, surgery types, and Charlson Comorbidity Index (CCI).

**Results:** There were 71,192 weight-loss surgeries during those four years with 170 cases of hospital mortality (“expired”). Compared to patients with BMI 35-40, those with BMI 30-35 and those with BMI >40 had significantly higher mortality risk (BMI 30-35: odds ratio=1.72, 95% CI=1.00-2.97; BMI >40: odds ratio=1.85, 95% CI=1.16-2.95). However, the obesity paradox phenomena disappeared when CCI was added into the multivariate analysis, the OR for BMI 30-35 was 1.5 with 95% CI=0.88-2.66, and the OR for CCI was 1.2 (95% CI=1.15-1.29)

**Conclusion:** This finding demonstrated the importance for bariatric surgeons to take care of the comorbidities of patients to reduce severe postoperative outcomes, especially hospital mortality.
An Alternative Transfer Perspective toward Advancing Judgment and Decision Making In Outdoor Leaders: A Student-Based Transfer Perspective

Judgment and decision-making (JDM) is widely considered to be an essential competency in outdoor leadership (Drury, Bonney, Berman, & Wagstaff, 2005; Martin, Cashel, Wagstaff, & Breunig, 2006; Priest & Gass, 2005). Shooter and Furman indicate that JDM has been regarded as “influencing every aspect of … leadership skill implementation” (2011, p. 190). As such, those who train professional outdoor leaders have the responsibility to search for training methods that best facilitate the progression of leaders from novice to expert levels of judgment and decision-making.

The researchers used the Actor-Oriented Transfer perspective (Lobato, 2012) to develop a better understanding of the development of judgment and decision-making among participants in an outdoor leadership course. In contrast to traditional cognitivist approaches to transfer of learning (e.g., Gass, 1999), the AOT perspective focuses on (1) how students interpret transfer situations, (2) the socially situated nature of transfer processes, and (3) the role of contextual sensitivity in the transfer process (Lobato, 2012). As Lobato states: “the AOT perspective emphasizes the interpretative nature of knowing, relinquishes a predetermined standard for judging what counts as transfer and draws upon inductive qualitative methods” (2012, p. 243). The researchers sought to explore the interpretative nature of the process used to develop decision-making heuristics among novice outdoor leaders participating in an outdoor leadership development course.

The researchers relied on three primary sources of data: participant observation, audio recordings of daily group debriefs, and participant journals. Both the daily debriefs and student journal entries were guided by a set of open-ended questions adapted from a survey developed by Sibthorp et al. (2011) to identify mechanisms of learning transfer in adventure education.

Two primary results emerged in the study that illustrate the value of the AOT perspective in understanding the process by which students in this course develop heuristics characteristic of more advanced levels of judgment and decision-making. First, students engaged in a constructivist approach to learning in which they continually reflected on the lessons from each LOD experience as well as how these lessons informed new but similar decision-making situations in which they found themselves. Second, the decisions that students made during their LOD experiences demonstrated that they were generalizing or expanding on lessons learned beyond the conditions of initial learning. The results of this study indicate that the AOT perspective has the potential to fill methodological gaps when viewed as a pedagogical tool in facilitating leadership development. As Luckner & Nadler (1997) state, the “better we understand the factors that influence learning and the processes that underlie it, the better we can design experiences that will benefit individuals” (p. xvi).
Determining the Utility of a Laboratory Eating Paradigm to Explore Social Eating

According to a recent National Health and Nutrition Examination Survey, overweight and obesity have reached epidemic levels in the United States. Researchers are increasingly engaged in exploring eating behavior with the goals of trying to understand what elements of eating behavior might lead to overweight and obesity and applying knowledge from these studies to encourage people to engage in healthy eating behaviors. The purpose of the current study was to determine the utility of a new laboratory eating paradigm that attempts to create a natural social eating environment while maintaining the control possible within a university laboratory. Known effects of gender on eating behavior (e.g. consumption rates and bite size), positive subjective ratings of the food item used, and subjective ratings of perceived eating behavior were replicated to show the utility of the paradigm. It was hypothesized that there would be a significant difference in grams consumed, bite size and number of bites between males and females such that males would consume more grams, take bigger bites, and take a greater number of bites.

One-hundred and twenty nine (73 Female, BMI 23.7 ± 4.9) participants ate a controlled meal in the laboratory. Participants were instructed to eat as naturally as possible including engaging in conversation with other participants. The main dependent variables of interest were: Grams consumed, Number of bites taken, and Bite Size.

The results of the analyses support the hypotheses and suggest that under the current paradigm, gender had an effect on total grams consumed, number of bites taken and bite size such that males consumed more, took more bites, and took larger bites than females.

The ultimate goal of the study was to determine if the LEP could be used as an environment in which to explore and test the implementation and usage of new tools that are designed to help people monitor their intake. The results of the study suggest that the LEP provides an environment that is acceptable to use to further explore the usage of novel tools and technologies that encourage people to engage in healthy eating behaviors.
Aligning Schools for Student Success –
A Network Analysis of Teacher Interactions on Student Test Scores

The objective of this study is to understand how the quality of collective or team relationships, plus the quality or the relationship between teacher and leader, determine student achievement. This study is uniquely different from the many such studies that have been performed in the past. Traditional studies propose that the quality of each individual teacher and the quality of leadership determines test scores, but these studies have experienced only modest success. Our analysis of seven elementary schools at one school district produced very dramatic results; we found that the quality of a teacher’s engagement in trust and advice team processes explain up to half the variation in student test scores and that leader-staff relationships catalyze these effects for team engagement.

In this study, data on interactions (e.g., with whom do you socialize/trust/seek advice, and access to resources, tasks, and skills) were collected and individual team engagement was analyzed using network analysis techniques. Network analysis returns various measures of individuals’ integration into network processes, such as information centrality, capability to access resources and perform tasks, one’s centrality in networks, and attachment to cliques. Then student test scores were analyzed with hierarchical linear modeling to control for school effects and for each student’s gender, ethnicity and socio-economic status. From this, adjusted test score for each teacher was calculated. Then the effects of network measures and leader-staff relationships on adjusted student test scores (averaged by teacher) were analyzed using multiple regression procedures.

This study strongly supports the claim that the quality of collective relationship is important, and informs practitioners of ways to enhance collaborative efforts among all faculty and staff in order to improve test scores in schools.
The Impact of Leisure Education on College Students’ Experience

Introduction: The transition from high school to college is challenging at best. College student developmental growth is in large part the responsibility of the institution. Therefore, the institution should facilitate an environment in which positive student development can occur.

Purpose Statement: It has been suggested that an overall sense of university belonging has positive implications for student retention, relationships with others, and self-esteem. This study attempted to determine if participation in a leisure skills course positively impacts overall university belonging and self-esteem.

Methods: A survey was administered in September and November of the fall 2015 semester. Participants enrolled in leisure skills courses were administered questionnaires in class via iPads and paper surveys. Participants not enrolled in leisure skills courses took the survey online through the university’s research pool. School satisfaction, school belonging, student life satisfaction, and self-esteem.

Results: Group assignment over time was found to have a significant effect on the changes within the dependent variables (F = 4.462, ρ < .01, η² = .032). Significant differences in the change between groups occurred in school satisfaction (F = 4.679, ρ < .05, η² = .008), school belonging (F = 8.275, ρ < .01, η² = .015), life satisfaction (F = 7.435, ρ < .01, η² = .013), and self-esteem (F = 10.138, ρ < .01, η² = .018). Students who were not enrolled in leisure skills courses experienced greater decreases in school satisfaction and life satisfaction than students enrolled in leisure skills courses. Students enrolled in leisure skills courses experienced an increase in school belonging and self-esteem over the course of the semester while students not enrolled experienced a decrease.

Implications and Conclusion: The findings suggest that students in leisure skills courses are better able to manage school satisfaction, school belonging, life satisfaction, and self-esteem over the course of the semester than those not enrolled in leisure skills courses. Overall, those enrolled in leisure skills courses might be able to better cope with life challenges than those not enrolled in leisure skills courses. This has implications for institutions to consider how leisure opportunities are presented and available to the student body as well as ways to encourage leisure participation. These findings also make a case to study student retention and the value of leisure in facilitating community while in college. While further research is needed regarding these findings, an important base understanding was gained about the experiences between those enrolled and those not enrolled in leisure skills courses.
A Tale of Two Trails: Comparing Urban Greenway Use and Benefits in Atlanta, GA, and San Antonio, TX

Greenways represent unique “corridors of benefits” that have attracted much attention from urban planners and recreation practitioners. Well-designed greenways can contribute to sustainable urban development by improving health and wellness, facilitating connections with nature, fostering social interaction and inclusion, adding value to marginal land, and enhancing connectivity across urban landscapes. Given the variation in greenway design and management in cities across the country, there is a growing need to understand how different greenways contribute to diverse urban communities. The purpose of the study was to provide several layers of important information that could be used to inform urban greenway management and design. Focusing on two greenways (the Atlanta Beltline in Atlanta, GA, and the Leon Creek Greenway in San Antonio, TX), this study explored patterns of greenway use and public perceptions of greenway-related benefits. Onsite user observations and intercept surveys were conducted at systematically selected locations along the greenways during summer 2015.

The urban Atlanta Beltline (AB), located near the dense development of downtown, had more users accessing the greenway by foot or bicycle and traveling to restaurants and shops. Most AB users were walking. The suburban Leon Creek Greenway (LCG), located in a wooded suburban San Antonio creek corridor, had more users accessing it by personal vehicle and using the greenway for recreation and exercise. Most LCG users were bicycling. The majority (71%) of observed AB users were White, while the LCG had a racial breakdown of 48% White and 44% Latino. Adults were the primary users of each greenway, encompassing 96% of users on AB and 92% of users on LCG. Users were more satisfied with AB’s connections to attractions and points of interest than users of LCG, while LCG users were more satisfied with the natural scenery of the greenway than AB users. As participants’ ratings for the three primary categories of greenway benefits (experiential, cultural, and environmental) suggested, each of these greenways appeared to meet different needs and play distinctive roles in their communities based on their locations and the greenway-proximate residents they serve. Greenway planners can use these results to help determine the type of greenway they would like to create in their city: a hub of activity that connects with a downtown infrastructure and represents an important transportation corridor, or a recreation destination providing rare opportunities for solitude and nature interaction in an otherwise urban landscape.
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**Marine Tourism in the Galapagos Islands: Analysis of Participant Reflections Using Kellert’s Typology of Environmental Values**

The Galapagos Islands are rich in endemic flora and fauna and have the potential to provide tourists with a unique experience. This study investigated how visitation to the Galapagos Islands could affect environmental ethics and values of tourists participating in a one-week cruise. Two tour operators that conducted cruise tourism participated in the study. We asked tourists from these tours to complete a questionnaire at the end of each trip. Fifty-seven respondents completed the post voyage questionnaire, a 93% response rate. For this analysis we asked tourists to respond to the question: how did this tour affect you? We adapted Kellert’s Typology of environmental values as a framework for categorizing the responses provided by each respondent. Results suggest that 36% of the participants had a humanistic (strong emotional appreciation) response, 42% a scientific, 32% a moralistic and 21% a naturalistic during their tour. It was also found that 19% of respondents could be categorized as having a utilitarian response to their voyage. These results demonstrate that the tourists on these two vessels experienced an elevated appreciation for nature, scientific information and value of the environment.
Telehealth: Changing the Face of Healthcare

The purpose of this study is to examine the impact of interdisciplinary rounding using the remote telepresence robot (RTR). The impact of the RTR on collaboration and patient care delivery will be explored from the healthcare provider’s perspective. Telemedicine can be facilitated through the use of computer and mobile technologies. Subjects will be interdisciplinary healthcare professionals in an acute care setting. This study will use the Collaboration and Satisfaction about Care Decisions tool to measure perceptions of collaboration. Study results will add to the current literature by expanding on areas such as digital rounding, interdisciplinary collaboration, remote robotic telepresence, and telehealth in the acute care setting. Results pending.

Keywords: Telehealth, Telemedicine, Delivery of care, Perceptions of telemedicine
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Evaluation of Choosy/ Farm to Belly Program in Three Head Start Preschools

The goal of the Choosy/ Farm to Belly program is to instill knowledge and appreciation for healthy food and exercise choices in preschool age children. The program includes a variety of materials: CDs, posters, photo cards, picture book, instructions/ ideas for games and crafts, additional props, recipe bags with food and instructions, and market days. The purpose of the research is to evaluate the Choosy/ Farm to Belly program by determining if the program was effectively implemented and analyzing the program’s impact on children’s physical activity and food preferences.

Three preschools are observed: Site 1 has complete Choosy program and training, Site 2 has minimal Choosy materials and no training, and Site 3 has zero Choosy materials or training. The outcome evaluation primarily focuses on short term and medium term outcomes. Short-term outcomes center on regular engagement in Choosy / Farm to Belly, adoption of Choosy language and messaging within the preschool, and changes in knowledge of healthy eating and activity options; and stated preferences for snack and play. These measures will be assessed through ongoing site visit observations that include brief intercept group interviews with the children and focus groups with teachers. Medium-term outcomes center on changes food and activity stated preferences, eating behavior, physical activity behavior, and adoption of choosy language, at home. These measures will be assessed through preprogram and post program surveys with parents/caregivers and post-program semi-structured interviews with children.

The data obtained from the monthly site visits allowed for comparison of the main Choosy preschool versus the incomplete Choosy preschools. Averages were taken to compare the three sites in respect to fruit and vegetable identification. Site 1 is the only site that showed an increase in identification abilities from the first visit to the last. Although there has been some improvement, the Site 2 and 3 have been inconsistent and have even showed a decrease in identification abilities between visits. Evaluation findings from the parent surveys and focus groups from Site 1 show that parents are very involved in establishing healthy habits in their kids and interested in learning ways to increase their child’s willingness to try new fruits and vegetables. Both parents and teachers appear to be motivated to use the Choosy program to help the children learn about nutrition and physical activity at a young age. In conclusion, the Choosy/ Farm to Belly program has provided opportunities for the children to gain exposure and experience with a variety of healthy foods. Throughout the repeated exposure, lessons, and activities, the children have increased knowledge about and identification of fruits and vegetables.

The Choosy/ Farm to Belly is a unique program that works to provide materials and experiences for preschool-aged children to learn about healthy living. By encouraging a healthy lifestyle at a young age, healthy habits can form and lead to a better lifestyle as an adult. This program is beneficial to the surrounding community and shows promise in providing similar benefits to different Head Start centers around the United States.
An Exploratory Study of How Secondary Teachers’ Instructional Practices Impact Gender Stereotype Effects and Students’ Achievement Goal Orientation in Mathematics

This descriptive study explored how secondary teachers’ instructional practices may impact gender stereotype effects and students’ achievement goal orientation in math courses. Classroom observations were conducted in four high school and two middle school math classes in Upstate South Carolina. The six classrooms observed were: a) mixed gender, with equal representation of both male and female students, and b) ethnically homogeneous in nature, with five of the six predominantly comprised of Caucasian students, and one comprised predominantly of African American students. Analysis of the observational data revealed the following comparisons: a) middle school classroom practices emphasized creativity and schema diversity, while high school classroom practices focused on grades and achievement testing, b) gender stereotype effects were more pronounced in the high school math classes, and c) students in middle school tended to exhibit a mastery goal orientation, while students in high school tended to exhibit a performance goal orientation. These findings suggest the above relationship between the change in scope and purpose of instructional practices in middle and high school mathematics courses with both gender stereotype effects, and students’ achievement goal orientation.
Comparing Activity Levels in High School Athletes during Studying

Previous findings have shown that short bouts of exercise, or breaks in sedentary time, may improve health and cognitive functioning. Additionally, physical activity encourages endorphin production, leading people who are physically active to experience an increase in positive affect. The current study investigates the differences between activity and inactivity on cognitive performance, mood states, and sleep habits.

Thirty-nine high school student athletes (26 males, 13 females; mean age = 16.10 ± 1.10) participated in a seven-week study. Participants reported being in good physical and mental health at the beginning of the study. Participants completed this study in their Physical Education classes during their typical school day under the direction of the school’s athletic director. Participants first attended a pre-test session where they completed a screening form, pre-survey, and a practice SAT (Scholastic Aptitude Test). They were then randomly assigned to either an active condition or an inactive condition during which they studied for the SAT for 30 minutes per day, two days a week. All participants took a daily survey after their study period each day. The active group was required to complete a two-minute step exercise and then study while pedaling on a FitDesk (stationary bike with a desktop attached). The inactive group did not complete a step exercise and was required to study at a traditional desk. All participants completed a post-survey and another practice SAT at the end of the study. Pre- and post-surveys were used to gage mood states (POMS) and sleep habits, and the practice SATs were used to measure cognitive performance.

The results of a 2x2 mixed factors ANOVA showed a significant increase in the practice SAT scores for the inactive group ($p=0.001$). Post-survey scores from the Anger subsection of the POMS indicate that the active group was significantly less angry than the inactive group ($p=0.013$). Additionally, the results indicate a trend for the active group scoring lower on negative subsections of the POMS than the inactive group (POMS Tension subsection: $p=0.098$, POMS Depression subsection: $p=0.065$). The active group also had a trend for better sleep habits on average compared to the inactive group (PSQI: $p=0.073$). Although our findings show that the inactive group’s practice SAT scores increased significantly, the overall increase was relatively small (increase in 6.36 points for the inactive group; increase in 2.81 points for the active group). Overall, adding activity into a sedentary student’s day could lead to a healthier lifestyle without compromising productivity, and may decrease the development of negative mood states and poor sleep habits.
ICLEP: Interactive Case for Learning Education Psychology

**Study Purpose:** Students enrolled in educational psychology courses without field experiences often have difficulty making theory to practice connections. To address this we created an interactive case to help students apply theories to an authentic classroom situation. This study investigates the value of this approach.

**Participants:** Undergraduate education majors and minors enrolled in five sections of an educational psychology course in Spring and Fall 2015.

**Research Methods:** We used a mixed methods research approach to assess the level of engagement of students working through the case and the influence of that engagement on the effectiveness of the case as a learning tool. We collected a variety of data sources, including: closed and open response instruments focused on self-efficacy and perceived value of the case, classroom video and audio, LiveScribe pen notes and audio, internet user interaction data, and follow up interviews.

**Findings:** Our analyses indicated that changes to the text and format of the case based on feedback on previous iterations improved the level of student engagement when interacting with the case in terms of both time spent and the number of times they ran through the options. In follow-up interviews, participants indicated that they enjoyed running through the simulation and many of the interviewees also noted that it was a useful tool to use and it would be a good reminder for when they actually enter the classroom. Participants did indicate some discomfort with the open-nature of the task and described wanting to see a definitive right and wrong solution to the problems embedded in the case. They also expressed feeling better able to understand the solution and underlying concepts when solutions were explained in detail.

**Conclusions And Implications:** Findings of this study indicate that this form of interactive can be a useful tool for learning psychology concepts. Changes to the text, and the addition of fuller explanations, and images improved engagement. However, students may need more scaffolding within tasks like these in order to become comfortable with the open-ended nature of classroom problems.
Chaga Mushroom (Inonotus obliquus) Influences
Breast Cancer Cell Growth and Inhibition

The Chaga mushroom (Inonotus obliquus) has been shown to have growth inhibitory qualities when applied to melanoma cells. Betulinic acid is one of the components that is believed to be present in the *I. obliquus*. Betulinic acid is known to have inhibitory qualities in several cancers including: ovarian, cervical, melanoma, and small and non-small cell lung cancers. The purpose of this study was to investigate any inhibitory qualities that the *I. obliquus* may have on breast cancer cells. A sterile water extract of the *I. obliquus* was prepared and applied at various concentrations to two different breast cancer cell lines (T47D and HCC1937). Inhibition of cellular growth and function were examined using a cell proliferation assay (MTS). The results of the MTS assay show marked inhibition of growth in the T47D cell line and poor inhibition in the HCC1937 cell line. Further testing related to apoptosis, cell cycle changes, and cell morphology are indicated to better understand the impact of the *I. obliquus* extract on these two cell lines. If inhibition is linked to certain types of breast cancers it could have implication for new approaches to treatments or prevention measures.
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Exploring the Interface of Genomics and Older Adults

The purpose of this research is to examine the attitudes and behaviors of adults age sixty and over regarding genetic and genomic testing. Research and understanding of this age group’s views on genetic testing has been limited in the past. There is rapid growth among older adults in the population, as well as an increased use of genetic information in health care. In light of these changes, there is an increased need for research about the social, legal, and ethical implications about using genetic components to health care for older adults. This study utilizes focus groups to further explore and understand how older adults engage with genetic information. Results from an analysis of the responses to a quantitative survey of adults who engaged in personal genomic testing were used to inform the focus group probes. The findings from this research will give health care professionals increased insight into older adult population needs regarding genetic-related information. The results will help to inform patient centered education and care related to genetics for older adults.
Training under Cold Stress Improved Future Impulse Control

Cold environments are a natural stressor and impact human comfort and performance through physiological homeostatic response. Exposure to uncomfortably cold environments common to many outdoor occupations can induce cold stress in short periods of time. As part of any occupation, individuals must often exercise impulse control and self-control when performing tasks and making decisions under stress. Cold stress has been shown to result in systematic cognitive error, though few studies have investigated the effects of cold stress on impulse control and self-control.

Thirty-five university students (18 Male, 17 Females; mean age = 19.3 ± 1.06) participated as part of a one-hour study. Participants reported being in good physical and mental health. Participants completed one of two conditions and performed the Arrow Flanker’s impulse control task as part of two back-to-back sessions. In the normal training condition, participants sat in a chair at room temperature for 5 minutes while training with and completing an impulse control task. After the task, the participants sat in a chair cooled with ice packs for 5 minutes before completing the impulse control task again. In the cold training condition the order was reversed. Participants first sat in the cooled chair while training and completing the impulse control task, then were given the opportunity to warm up before completing the task a second time in a comfortable normal condition. A standard subjective thermal comfort assessment was used to assess subjective feelings of cold perception and discomfort.

The result of a paired sample t-test found that during the cooled session, participants felt significantly colder (p<.001), more uncomfortable (p<.001) and had a 0.2°F lower tympanic ear temperature (p=.021) than during the neutral session. The result of 2 X 2 mixed factors ANOVA found a significant difference in impulse control within conditions, F(1,33)=7.35, p=.010, \( \eta^2= .185 \). Participants who did their training and first completion of the impulse control task in a comfortable condition did not improve on the number of false positive (responding when not prompted) responses (M=1.17) compared to the second time they performed the task (M=0.81) under discomforting cold stress, p=.358. However, participants who did their training and first completion of the impulse control task under discomforting cold stress had significantly fewer false positive responses (M=1.33) compared to the second time they performed the task (M=0.38) under comfortable conditions, t(17)=3.18, p=.005, r^2=.372. Findings suggest that occupations which put individuals at risk for thermal stress or discomfort due to environmental factors should train those individuals under the conditions typical to the job.
Examining FIM Score Gains in SCI Patients in Inpatient Rehab

In the United States, between 276,000 people are living with a spinal cord injury (SCI). The leading cause of SCIs in the U.S. is motor vehicle crashes (38%), followed by falls (30%), violence (14%), and recreational activities (9%) (National SCI Statistical Center, 2015). Treatments at inpatient SCI rehabilitation centers have been associated with improvements in function, recreation, participation, and quality of life outcomes (Gassaway et al., 2011). Recreational therapy-based inpatient treatments with this population yielded improved feelings of social support, stress management, adjustment to disability, increased sense of purpose and confidence, and increased physical and mental health maintenance post-rehabilitation (Loy, 2003).

The purpose of this study was to examine cognitive and motor independence of 560 patients with varying degrees of SCI, as measured by the Functional Independence Measure (FIM) upon admittance and at discharge. Data was collected from an electronic archive for the inpatient rehabilitation center, including seven years of patient records documenting demographic information, length of stay (LOS), and total FIM scores, FIM subscale scores for cognition and motor skills, and goal scores upon admission and discharge. Data was also analyzed to determine effects of length of stay on FIM scores.

The present study found that motor, cognitive, and total FIM scores significantly increased from admission to discharge. There was a significant difference between cognitive FIM scores as related to short or long length of stays. This study provides insight into whether rehabilitation treatment at this facility provides positive outcomes in the cognitive and motor dimensions. The significant differences found between motor FIM scores, cognitive FIM scores, and total FIM scores from the admission to discharge time points suggest that patients increased their functional cognitive and motor skills during their stay at the inpatient rehabilitation center. These changes could translate into competent community integration and functional independence in the home, workplace, and community as patients gain skills to perform basic tasks to take care of themselves and their relationships to improve holistic health.
Bystander Behavior in Senior Student Leaders

There is a growing body of research related to the bystander effect and appropriate intervention techniques, but little on the role of student leaders as bystanders. This study anonymously surveyed senior students at a large, public, land-grant institution in the Southeast and compared the responses of senior student leaders of recognized student organizations to those of senior student non-leaders and to those of incoming first-year students. The questions in the survey focused on participant’s understanding of bystander intervention and sexual misconduct as well as actions participants might take when dealing with issues of sexual misconduct. The purpose of this study was to determine whether holding a position of leadership in college has an effect on the likelihood that an individual would intervene in situations of sexual misconduct and interpersonal violence. This study found senior student leaders have an increased likelihood to take action and to intervene in certain situations.
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**Novel Logical Reasoning Tutor**

**Purpose:** Student gain a deeper, conceptual understand of programming when they reason about code as opposed to running the code and observing output. Our research hopes to provide an easily approachable web-application that teaches basic programming concepts through reasoning – this is done through software verification and is independent of instructor aid.

**Subject Description:** The subjects were 100 sophomore-level undergraduate students enrolled in the Clemson School of Computing, specifically in CPSC 2150. The students had experience with C, C++, and Java but no experience in the logical reasoning of code.

**Research Methodologies:** The students completed 10 logical reasoning problems using solely the web application; the problems were presented in increasing order of difficulty, covering topics such as variable assignment, if-then branches, and while loops. Each problem had to be solved correctly before the next one was shown. Additionally, the students were divided into 3 groups in which we varied if students had access to instructor aid and if students were encouraged to work at leisure.

**Summary of Findings:** We anonymously tracked the number of attempts each student took in attempting the 10 problems; the average number of attempts across the groups for 3 problems is shown:

<table>
<thead>
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<th>Question #</th>
<th>All</th>
<th>With aid, at leisure</th>
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<th>With aid, not at leisure</th>
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<td>1.27</td>
<td>1.26</td>
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After completing the problem set, students were also asked to give their opinion on the aesthetic and educational value of the exercise. Their submissions were free-response, and we received some impeccable feedback such as, “I feel as though I have learned to look at code more closely, and to think more critically about what the code is doing.”

**Conclusion:** Based on data of averages attempts, we conclude two things: teacher aid did not influence the average attempt count and the application is self-sufficient, and students took fewer attempts in later problems thus they did get better at logically reasoning through code.

Based student feedback, we believe that the application does inspire students to think of code and new and more conceptually deep manner. After making adjustments to the software based on the feedback, we believe that the application is able to facilitate a more effective and conceptual of thinking and learning about code through logical reasoning.

*Funded in part from NSF grants CCF-1161916 and DUE-1022941.*
Co-targeting of JNK and HUNK in HER2-positive Breast Cancer Resistant to Trastuzumab and Lapatinib

Treatments with drugs that target and inhibit human epidermal growth factor receptor 2 (HER2), such as trastuzumab and lapatinib, have been successful in treating HER2-positive breast cancer. Yet, the emergence of resistance to these standard therapies stands as an important issue that affects the outcome for many patients. We have undertaken a study to investigate if the JNK signaling molecule downstream of epidermal growth factor receptor can be targeted in HER2-positive resistant breast cancer. We now show that JNK inhibition using the pan-JNK inhibitor, SP600125, is effective in increasing apoptosis using the trastuzumab resistant JIMT-1 mammary tumor model. We also examine combination strategies to strengthen the effects of JNK inhibition and observe that combined inhibition of JNK and the protein kinase HUNK can significantly impair tumor growth of resistant HER2-positive mammary tumors in vivo.
Effects of Mindfulness on Asthma Symptoms: A Study among College Students

**Purpose:** Asthma is a costly disease in developed countries, and its prevalence is increasing in developing countries. Among known risk factors for asthma, stress has been identified as a trigger of asthma symptoms. Mindfulness-based stress reduction (MBSR) has proven effects in reducing stress among different demographic groups, and thus mindfulness training might be one option to reduce symptoms among asthma patients as a complementary approach. In this study we explore the association between trait mindfulness and asthma symptoms among a sample of college freshmen.

**Description of Subjects:** In 2014 we surveyed a convenience sample of 1516 college freshmen, from a public university in Shanghai, China. After deleting cases with missing values in variables used in this analysis, we were left with an analysis sample of 1354 cases. Of these 1354 cases, 515 are male and 839 are female.

**Research Methodology:** We used three multilevel logistic regressions to estimate the association between trait mindfulness (measured by Mindful Awareness Attention Scale) and having an asthma diagnosis, having had persistent dry cough and having had wheezing symptoms. These students' home province was used as the clustering variable for the multilevel models. Age, gender, household registration status (urban vs. rural), and the frequency of smog in the respondent's hometown were used as control variables in the study.

**Summary of Findings:** Among the 1385 students in the analysis sample (mean age=19.7), 47(3.4%) received an asthma diagnosis before, 250(18.1%) reported having had persistent dry cough, and 99(7.2%) reported having had wheezing symptoms. Trait mindfulness is negatively associated with having had an asthma diagnosis (Odds Ratio=0.64, p=0.027) and having had persistent dry cough (O.R. =0.68, p<0.0005). Trait mindfulness is negatively associated with having had wheezing symptoms but the association is not significant at α=0.05 (O.R. =0.78, p=0.075).

**Discussion and Implications for Practice:** This is the first study that reveals the link between trait mindfulness and asthma symptoms/diagnosis with a relatively large sample. Our finding provides preliminary evidence that those people with higher level of mindfulness are less likely to have had an asthma diagnosis and less likely to have the symptom of persistent dry cough. Further study is needed to examine the possible benefit of mindfulness training in asthma control.
Diabetes is a group of metabolic diseases where the body’s pancreas does not produce enough insulin or does not properly respond to insulin produced, resulting in high blood sugar levels over a prolonged period. Type 1 diabetes (T1D) can occur at any age, but is most commonly diagnosed from infancy to late 30s. Treatment and prevention measures for type 1 diabetes can be monitored by a case manager that is assigned to each patient. Case management is a collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet an individual’s and family’s health needs. The application of case management to adult diabetic patients has been shown to improve health outcomes, such as glycemic control and reducing the risk of a cardiovascular event. One issue that adult patients struggle with is numeracy, which can also effect pediatric patients. Numeracy skills involve patients doing simple math for following instructions regarding how to take prescription medications or doing math to determine how much insulin is required to lower glucose levels to a normal level. Poor health literacy and numeracy skills are associated with negative health outcomes in people with diabetes, including, but limited to, poor glycemic control, increased HbA1c levels and increased blood pressure. The application of case management to adult diabetic patients, has been shown to improve overall reading levels and understanding of health related materials. Increasing numeracy skills in pediatric patients involves increasing personal skills as well as increasing the numeracy skills of the patient’s caregiver since most pediatric patients rely on others to help manage their symptoms. The combination of developmental learning theories and case management can help pediatric patients manage and control their symptoms. Developmental learning theories can advise when and how children can attain certain levels of health literacy and can aid the case managers. Case managers could give health information in the format that the child learns best according to the age of the child. We recommend best practices in chronic disease self-management and use of educational theory and provide specific recommendations and application of theory for increasing self-management in pediatric type 1 diabetes. Recommendations for future studies include determining the effect of case management on numeracy skills in type 1 diabetic pediatric patients and the caregiver.
Donor Human Milk

This study aims to describe a cohort of infants who received donor human milk during their hospitalization period at The Children’s Hospital of Philadelphia (main campus, inpatient) through a retrospective descriptive cohort study. In recent years, scientific evidence has begun to support the use of human milk (HM) as the diet of choice for preterm and full-term infants. The benefits of breast milk are superior to any other diet available for infants; it’s nutritional and immunobiological components contribute to their essential growth and development. Breast milk is especially essential for sick infants whose bodies need proper nutrition for recovery and healing. The idea of mothers donating their excess milk to other mothers unable to breastfeed is termed donor human milk (DHM). Donor human milk (DHM) has emerged because of the essential benefits of human milk for all infants. The use of DHM has given mothers the choice to use human milk for their infants when they are unable to breastfeed.

In this retrospective chart review, there were approximately 375 eligible infants who are <1 year of age, who received donor human milk during their hospitalization period. The study reviewed the charts of these infants to collect descriptive data including gestational age, birth weight, diagnosis, total number of days receiving donor human milk, volume of donor milk per day and total volume, ordered diet at discharge, and total length of stay. The study also analyzed the cost of using donor human milk for each infant during hospitalization. The resulting data is currently being statistically analyzed before presentation and publication; thus, the findings cannot be properly summarized.

The end focus of this research project is to fill in the existing gaps in research regarding the benefits of donor human milk. The existing research focuses on the benefits of donor human milk in a pre-term infant population (born before 32 weeks gestational age), but this current research proposal aims to show the benefits of donor human milk for not only the pre-term infant population, but also for the full-term infant population. The conclusion of the research should describe indications of use for donor human milk for infants and result in an increase of DHM use in hospitals that have or can obtain access to it.
Buprenorphine vs Methadone: Health Outcomes for Opioid Dependent Mothers and Infants

Background: Maternal opioid use has risen in recent years. Maternal opioid use may lead to Neonatal Abstinence Syndrome (NAS) in infants. Methadone has been the most commonly used drug to treat mothers. Recent research has shown that Buprenorphine may lead to better infant outcomes. There is national debate over the best treatment plan for mother and infant dyads affected by opioid usage.

Methods: A retrospective chart review was conducted for (n=117) NAS infants (ICD-9 codes 760.72, 779.5) born in a large regional hospital from 2006-2014 who were treated with early methadone. Two cohorts, mothers treated with Buprenorphine and mothers treated with Methadone, were compared for infant health outcomes and cost outcomes. Descriptive analysis and t-tests were performed using Stata.

Results: Two infant health variables were significantly different. Infants of mothers treated with Buprenorphine had a statistically higher birth weight than newborns of mothers treated with Methadone (3180.33 g vs 2886.99 g; p < 0.01). Additionally, mothers treated with Buprenorphine had infants with shorter durations of Methadone treatment than mothers treated with Methadone (43.8 days vs 55.841 days; p < 0.01). There was no statistically significant difference in hospital costs between the two cohorts.

Conclusions: Buprenorphine treatment in opioid dependent mothers may lead to higher birth weights and shorter duration of Methadone withdrawal treatment for infants with NAS, although it does not provide a cost advantage to hospitals. Buprenorphine may be more expensive for mothers, but the benefits to infants make it a treatment plan that should be considered more regularly.
The purpose and/or problem statement: The goal of this research project was to evaluate the potential for interactive case studies to support theory to practice connections in educational psychology. Students at the implementation university do not have a field placement associated with their Educational Psychology course, so this digital resource was created as a tool for development of conceptual and operational understanding in the different theoretical viewpoints in Educational Psychology.

A description of subjects, including pertinent characteristics: Participants in the study were one Master’s and three undergraduate level educational psychology courses across four semesters: Summer 2014, Fall 2014, Spring 2015, and Fall 2015. There were 25 Master’s level students that were all either current teachers pursuing Masters in Teaching and Learning, or pre-service teachers seeking Master of Arts in Teaching qualifications. There were 59 total undergraduate students who were seeking bachelor's degrees with either a major or minor in education (29 in the Fall 2014 group and 30 in the spring 2015 group). There were around 100 undergraduate students for the Fall 2015 implementation.

A description of the research methodology used: Participants were administered surveys following the activity that focused on their self-efficacy with regards to their ability to understand and implement behaviourist principles in a classroom setting, their attitudes and beliefs about the value of operant conditioning for teaching and learning, and their opinions of the case activity. The survey consisted of a section of open-ended questions that gauged overall impressions of the value and design of the interactive case. Students participated in the activity in pairs, and then completed a post-survey. Participants were also given an opportunity to give verbal feedback to the researchers either directly after the activity or during the next class period.

A summary of the findings: For data analysis, we looked for emergent themes in the student’s feedback on the activity, specifically focusing on the pre and post survey data. The key theme from the student feedback was that most of the students felt that the activity was beneficial in helping with their understanding of behaviourism; it also helped them to see how to use behaviorism in a real life setting and was a good study tool.

A brief discussion of conclusions and/or implications for practice: Based on the feedback from the students, self-efficacy appeared to increase as the activity became more complex. Further research is required to see the full effect of this web-based activity on learning educational psychology theories and student self-efficacy. However, these results show that this activity has the potential to help students build upon their knowledge base of behaviorist concepts in a meaningful way, and also supports their confidence in their ability to successfully implement these ideas into practice.
Positive Youth Development and Adolescent Eating Disorder Symptomatology: 
The Role of Natural Mentors

Eating disorders and related symptoms are a prevalent issue affecting adolescents. The frequency with which they are occurring and their potential for creating lasting outcomes in adolescents is cause for concern among youth development professionals. Much of the prior literature on adolescent eating disorders and related issues has been from a prevention model or deficit approach to development. The current study takes a positive youth development (PYD) approach to examine the strengths and resources that may moderate the effect of eating disorder symptomatology on youth PYD. In particular we will consider the contextual resource of natural mentors. The presence of natural mentors in the lives of adolescents has been shown to influence positive developmental outcomes; however, no research has been conducted to examine the presence of natural mentors on adolescent eating disorder symptomatology and PYD. Therefore, using data from youth in Grades 9 and 10 from the 4-H Study of PYD (e.g., Lerner et al., 2005), we conducted hierarchical OLS regression analyses to model the relationships among the presence of a natural mentoring relationship, eating disorder symptomatology (drive for thinness, body dissatisfaction), and a multidimensional measure of youth thriving, the Five Cs of PYD (competence, confidence, connection, character, and caring). The sample was 72% European American and 68.0% female, with a mean age in Grade 9 = 14.92 years, $SD = .99$ years.

Results indicated that the presence of a natural mentor predicted favorable concurrent and subsequent levels of reported eating disorders and PYD in young people. The presence of a natural mentor also moderated the impact of eating disorder symptoms on later PYD. The findings suggest that programs designed to address eating disorders in adolescents could experience greater benefits if they identify and include these young people’s natural mentors in prevention and intervention efforts.
Breast Cancer Survivor Preferences for Home Based Nutrition Interventions – Feasibility Project in a Survivorship Clinic

Summary of Project and Methodology: Breast cancer is the most commonly diagnosed cancer among women and there are expected to be 1,665,540 new cases diagnosed in 2014. Advancements in early detection have greatly improved treatment outcomes for the majority of these patients and the 5-year survival rate is 89.2%\(^1\). Lifestyles and habits including obesity and high fat are now implicated as a risk factor for the development of breast cancer as well as being a risk for other cancers. Cancer survivorship programs serving large communities and multiple sites need to understand how to meet the unique needs of this expanding population as well as all cancer survivors. Survivorship programs not only are focused on the cancer a patient was diagnosed with but also preventative strategies since second cancers unrelated to the first cancer comprise 19% of all new cancers.

Breast cancer survivors typically comprise the majority of patients in survivorship programs, research on cost-effective communication methods is an important step in reaching this population. The present study used a cross-sectional survey design to collect data on internet access, mode of internet access, and the remote-based communication preferences on a convenience sample of breast cancer survivors (n=30). The remote based intervention methods included: Facebook, Twitter, test messaging, email, private phone calls, and group phone calls.

Results indicated that ninety-three percent of the participants had regular access to the internet. The most commonly used tool in accessing the internet was the laptop (68.97%), followed by phone (58.62%), tablet (44.83%), and desktop (41.38%). The majority of the participants (82.76%) preferred email communication, followed by private telephone calls (48.28%), text messages (37.93%), Facebook (37.93%), group telephone calls (20.69%), and Twitter (3.45%).

Limitations, Discussion and Conclusions: Results of this study suggest that email may be an economically feasible method of reaching the large population of breast cancer survivors. The small sample size and narrow focus on breast cancer survivors were the main limitations of this study. Future studies should include a larger sample size, other modes of remote communication, and data from other types of cancer survivors. Email communication should be pilot tested with this population to determine the effectiveness and participation rate of this population. The results of this study are an encouraging starting point for resource efficient communication with breast cancer survivors.

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Confronting Whiteness in Tanzania

Racism today has taken on a new, subtle form marked by ambivalence, apathy, and theories of Whiteness (Bonilla & Forman, 2000; McConahay, et al., 1981). Contact with ‘others,’ under the right conditions, may facilitate opportunities for students to confront modern racism and develop a more inclusive racial attitude (McClelland & Linnander, 2006; Tatum, 1992). Cross-cultural contact has also been found to challenge the concept of modern racism, though in some cases the opposite has been true (Mitchell, Donahue, and Young-Law, 2012; Trilokekar & Kukar, 2011). The purpose of this study was to qualitatively investigate whether and how cross-cultural contact challenged student’s racial attitudes during a two-week, international service-learning trip.

Data were collected during the summer of 2015 from 14 students, enrolled at a large South Eastern university, participating in a two-week visit to Tanzania. The data were collected in three stages: (1) during the trip—included unstructured journal entries, observation, and field notes, (2) immediately post-trip—included self-administered, semi-structured interviews and prompted photo elicitation, (3) three months after the trip—included two small, 90-minute focus groups. Data were triangulated using the aforementioned data points and analyzed using an inductive, thematic coding approach.

In general, students had a difficult time articulating their racial attitudes and in many cases either avoided addressing the topic or reverted to familiar, rote discourses. For example, ‘others’ abroad were typically cast as “poor-but-happy” (Guttentag, 2009, p. 546) or as Jenny [name changed] suggested “not better or worse, just different.” It appeared that the student’s embodied presence became symbols of difference; however, students struggled to determine if the difference was indicative of their race, ethnicity, group membership, or status as tourists. Students also cast themselves as victims in certain social encounters, minimizing their position(s) of privilege and power.

In review of the data, it became apparent that the enclavistic nature of study abroad may have contributed to student’s under-examination of their Whiteness. However, in many ways students seemed to “see everything and…understand nothing. Fleeing from social others at home and exoticizing them abroad” as Priest & Priest (2008) described (p. 69). Encouraging more individual exploration and intentional debriefing of experiences is recommended to assist students in challenging assumptions and abandoning comfortable, learnt discourses about race. Extended and repeated, civil encounters with others may also facilitate greater dialogue and erode long held, damaging racial attitudes.
Exploring Dental-related Emergency Department Visits Among SC Patients

This empirical work was conducted to analyze the need for change in the U.S. healthcare delivery system regarding access to dental care. Specifically, we explored the association of dental problems and ED visits in South Carolina and discuss solutions for reducing the problem.

We used SC patient encounter data to explore dental-related ED visits, both to determine the volume and characteristics of patients seeking dental care in the ED. We restricted our analysis to only patients with valid South Carolina zip codes who visited an ED between January 1, 2012 and December 31, 2013 (N = 3,774,188).

We found that even though they are quite preventable, dental issues ranked 11th of 171 minor diagnostic categories for SC ED visits in 2012-2013. The average cost per visit to the ED for dental issues was $842.51 (SD $922.41), with the most common procedural code being documented as a brief interview and evaluation (94.44%). Dental-related ED visits were much more pronounced for blacks compared to the SC population (42% vs. 28%) but less pronounced for whites (56% vs. 64%) and Hispanics compared to the population (1% vs. 5%). The majority of patients visiting SC EDs between 2012 and 2013 were uninsured (52.55%) and between the ages of 20-39 (67.96%).

Based on this analysis, we recommend that interventions target the uninsured aged 20-39 in SC. The goal of any interventions should be to provide more available access to dental care for this population as measured by reducing dental-related ED visits. Interventionists should be mindful that among the uninsured aged 20-39 with an oral health primary diagnosis, 23.67% (N=4,341) had a secondary diagnosis of tobacco use disorder.
Cultural Sleep Habits: A Comparison of Austria and America

Research suggests that individuals with stable sleep habits function better during the day. However, little research has compared sleep habits in different cultures with differing college environments. The purpose of this study was to compare sleep habits between American college students and Austrian college students.

Participants consisted of 292 University of Vienna students (males=55, females=237) and 313 Clemson University students (males=124, females=189). Participants were recruited through undergraduate psychology courses and were asked to complete a set of self-report surveys regarding their sleep habits. The surveys included were the Epworth Sleepiness Scale and the Pittsburgh Sleep Quality Index (PSQI). Sleep habits were found from the PSQI predefined components of subjective sleep quality, sleep duration, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbance, sleep medication and daytime dysfunction. The PSQI was also analyzed using a two-factor system—sleep quality factor and sleep quantity factor to further define sleep habits. The sleep quality factor consists of sleep disturbances, sleep latency, daytime dysfunction, sleep quality, and sleep medication, and the sleep quantity factor consists of sleep efficiency and sleep duration. The Epworth Sleepiness Scale can be scored into two factors—active sleepiness factor and inactive sleepiness factor. Active sleepiness is comprised of the ESS question “talking to someone,” and inactive sleepiness is comprised of the Epworth items regarding inactive task: sitting/reading, watching TV, vehicle passenger, lying down in afternoon, after lunch, driving, and public place.

Independent t-tests were performed on all measures to compare University of Vienna students and Clemson University students. Analysis showed that Vienna students have earlier bedtimes $t(603)=6.375, p<.001$ and later wake times than Clemson students $t(592.616)=-3.439, p=.001$. Vienna students have a longer sleep latency $t(603)=4.48, p<.001$, a longer sleep duration $t(578.528)=7.036, p<.001$, more sleep disturbances $t(602.259)=4.207, p<.001$, and less sleep medications $t(484.484)=3.872, p<.001$. There were no significant results for the remaining components of the PSQI or Epworth total sleepiness between the two groups. Vienna had a better sleep quality factor, $t(602.971)=-2.453, p=.014$, and a better sleep quantity factor, $t(580.415)=5.040, p<.000$. Clemson had significantly greater Epworth active sleepiness, $t(545.932)=9.441, p<.000$. Epworth inactive sleepiness was not significant.

Vienna students had better sleep habits overall than American students. Contributing factors for these differences between Vienna and Clemson students could be the college environment and cultural differences. University of Vienna is in an urban setting and large city atmosphere, whereas Clemson University is located in rural United States, with the campus being the focal point of the town. Further research needs to be conducted on why Americans do not sleep as well.
Engagement in Mathematics of Underrepresented Students in Single-sex and Coeducational Classroom Settings

The purpose of this research is to examine and analyze engagement of underrepresented students in mathematics single-sex and coeducational classrooms. We seek to better understand whether students’ academic and social engagement during mathematics classes is connected to the type of class the student is in—single sex or coeducational. This study has a total of 6 subjects: 2 African American girls in single-sex (all girls) math classes, 2 African American girls in coeducational math classes, and 2 African American boys in single-sex (all boys) math classes. To date, each of these students has been observed for at least one entire class period, which consists of 180 observation intervals; the 2 students in the all girls math class have been observed for two class periods. To measure the students’ engagement, we used the Behavioral Observation of Students in Schools (BOSS) (Fredricks, 2011). This methodology was chosen because it allowed us to focus on an individual student and utilize the students’ classmate peers as a comparison. Each observation period lasted 45 minutes, split into 180 intervals, each lasting 15 seconds. The first four intervals of a set of five focused on the target student, allowing us to record whether the student appeared to be engaged passively or actively for those 15 seconds and whether the student appeared to be off task (off task and passive/active engagement were explicated in the BOSS categories). In the fifth interval, we measured the engagement of one of the target student’s peers. Additionally, we also measured whether teacher-directed instruction was occurring at every fifth interval.

The findings from this methodology are emergent; analyses conducted to this point in time indicate that five of the six target students exhibited more passive and less active engagement than their peer group. These findings were consistent across class type, meaning that regardless of whether the target student was in a single-sex or coeducational class, the pattern was less active and more passive engagement than their peer group. However, for female students, this pattern seemed more pronounced with the coeducational math class than the all girls’ math class. Further, the all boys’ class exhibited more active engagement than either the all girls class or the coeducational class. Finally, all classes were dominated by teacher-directed instruction, which occurred at least 80% of the class period for all observed classes.
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**Therapeutic Yoga Improves Balance and Balance Confidence for People with Parkinson’s Disease**

The objective of this study was to improve balance and balance confidence in individuals with Parkinson's Disease (PD) following an 8-week therapeutic yoga intervention. Balance impairment is common in PD and contributes to falls and fear of falling (FoF). Falls lead to serious secondary complications, such as increased mortality and fractures. Because balance is complex and requires integration of multiple body functions, structures, and systems, it is likely that a holistic mind-body intervention (yoga) will have more therapeutic advantages and will lead to greater improvements compared to simple body strengthening or stretching completed through a single plane of movement. To be included in this randomized controlled trial, individuals must have a PD diagnosis with a rating of 1.5-4 on the Modified Hoehn and Yahr Scale; endorsement of FoF, able to stand and walk 10 meters with or without an assistive device; >18 years old; able to speak English; score >4 out of 6 on the short Mini Mental Status Exam. Individuals were randomized into the experimental group or the wait list control (WLC). The intervention was an 8-week progressively difficult therapeutic yoga intervention, developed by yoga therapist to focus on improving balance and reduce FoF. The UPDRS-motor measured motor function, Mini-BESTest measured four balance control systems, and Functional Gait Assessment (FGA) assessed postural stability. The Activity Balance Confidence (ABC) questionnaire measured FoF. Twenty-three individuals completed the study. The UPDRS-motor scores improved significantly for the experimental group (t=2.727, p<.05), as did the Mini BESTest (t=-7.201, p=.000), the FGA (t=-9.699, p=.000), and the ABC (t=-2.983, p=.007). For the WLC, there were not significant changes in the UPDRS, FGA, or the ABC; however, there was significant improvement in the Mini BESTest (t=-4.83, p=.001). An 8-week therapeutic yoga intervention was successful in improving balance and balance confidence for individuals with PD.
Impact of a Novel After School Program, Smart Fit Girls, on the Physical and Emotional Health of Adolescent Girls

Adolescent girls have a higher prevalence of obesity, are more sedentary, and suffer from psychosocial distress more commonly than their male counterparts. The purpose of this research is to explore the efficacy of an after-school program, Smart Fit Girls (SFG), which aims to improve adolescent girls’ physical activity enjoyment, self-esteem and body image. Middle school girls living in South Carolina and Colorado participated in the study. Participants were assigned to an experimental group (girls who participated in SFG at three different sites, n=25) or a control (girls who did not participate in SFG at one of the three experimental sites, n=70) and completed two rounds of questionnaires 7-8 weeks apart. Meaningful changes in body image (7.28% vs. 1.37%) and physical activity enjoyment (5.11% vs. -0.31%) were found in the experimental but not the control group. Statistically significant improvements in self-esteem were found in the experimental but not the control group (5.67% vs. 0.62%, respectively). Girls who participated in Smart Fit Girls reported greater improvements in their body image, self-esteem, and physical activity enjoyment compared to the control group. Potential implications of this research include improved wellbeing of adolescent girls and further contributions to health related disciplines.
The Value of Career ePortfolios on Job Applicant Performance: Using Data to Determine Effectiveness

ePortfolios have been a component of job applications in several academic disciplines, yet researcher opinions on their effectiveness as job application materials are mixed. Minimal research exists currently that touches upon the degree to which constructing an ePortfolio allows those developers to reflect on their abilities and skills and convey that information to potential employers in the interview process. As a result, a research team from Clemson’s Division of Undergraduate Studies and the Eugene T. Moore School of Education conducted a study that fills that gap in the literature and provides data that documents what students learn through the construction and utilization of a career ePortfolio.

The research team followed cohorts of undergraduate students in the Health Sciences and Engineering disciplines at Clemson University, all of whom were involved in ePortfolio-developing capstone or internship classes in the 2014-2015 or 2015-2016 academic years. During those classes, student participants were randomly assigned to complete mock interviews after engaging in a variety of career development interventions, the last of which included enhanced ePortfolio pedagogical training. The interviews were then scored, based on a detailed evaluation rubric. One-way ANOVA analysis revealed that students in the study demonstrated statistically significant higher quality interview skills after engaging in ePortfolio pedagogy mentoring sessions, compared to students who received related or no career development training prior to their mock interviews. The research team also used a similar evaluation rubric to measure ePortfolio quality and compared Health Sciences ePortfolios created in 2014, without the study's pedagogy training, against portfolios developed during the courses in this study. T-test analysis revealed statistically significant improvements in ePortfolio quality in the courses utilizing the study’s ePortfolio pedagogy.

The results of this study suggest to higher education administrators and faculty that engaging students in purposeful and iterative self-reflective dialogue centered on the evidence collected in their ePortfolios positively impacts the students’ abilities to communicate their accomplishments to potential employers. This research encourages academics to support students in the development of a career portfolio, thus providing those students the opportunity to exit Clemson University armed with both the physical evidence of knowledge gained throughout their undergraduate experiences and the self-reflection needed to form more cohesive professional identities.
Exploring the First Day Hike Phenomenon: Who Hikes and Why?

First Day Hikes, which occur on New Year’s Day, are part of a nationwide initiative led by America’s State Parks to get more people outdoors. The concept emerged in Massachusetts 25 years ago, and became a national movement in 2012 when all 50 state park systems held at least one First Day Hike for the first time. In 2016, over 56,000 people across the US attended one of the nearly 1,200 First Day Hikes offered. Despite the success of the First Day Hike initiative, relatively little is known about the First Day Hikers themselves. Anecdotal evidence suggests the events attract a number of first-time outdoor recreationists, many of whom have never experienced state parks before. These hikers seem to appreciate the opportunity to enjoy an active outdoor experience with family and friends during a season (winter) not typically associated with state park-based recreation. However, aside from isolated stories, comments, and unsolicited feedback, very little is known about the motives driving First Day Hike participation and the broader impacts of the experience.

To better understand the First Day Hike phenomenon, Clemson University is working with several state park agencies (GA, MA, and SC) to create a basic profile of the First Day Hiker population. We will attempt to determine what motivates people to attend First Day Hikes, what impacts those hikes have (if any) on future outdoor recreation participation, and broader impacts of the First Day Hike experience on health and wellness, environmental stewardship, and overall support for parks. This pilot study will occur in two phases: brief intercept surveys with the total population of adult First Day Hikers across the three states (n = 1,955), followed by a more detailed follow-up several months later with a systematically selected subset of the hikers. The data collection began on January 1, 2016, and results from the first phase of the research will be available to be presented at the CBSHS/CoED Research Forum in April. With plans to scale up in future years, this study could yield information that influences the marketing and management of First Day Hikes, and could help park managers around the country understand how to promote outdoor recreation at their respective sites.
User Analysis of a Wrist-Worn Eating Activity Monitor

The purpose of this study was to evaluate how individuals used new tools that have been developed to automate the study of human eating behavior. This research examined three aspects of a participant’s usage habits of a new energy intake monitoring tool, the Bite Counter. Research methods included a mixed model study design supplemented by user surveys. Questions pertaining to immediate and long term compliance of the device and adherence to the alarm were examined based on data collected from 30 female participants. Participants adapted to using the device quite easily. Eighty percent were compliant immediately from the start of use, increasing to 90% of participants within the first two weeks of the study. However, 23% of participants never attained or failed to maintain compliance standards with the Bite Counter. Finally, compliant participants stopped eating when the Bite Counter alarm sounded approximately 69% of the time. In summary, these findings show that the Bite Counter is easily adopted and functionally easy to operate for novice users.
Clemson University Institute for Engaged Aging

The Clemson University Institute for Engaged Aging (IEA) provides the mechanism for faculty and students to create internal and external partnerships as they discover and promote best practices through their research, education and service. The IEA mission is to enable older adults to be engaged in family and community life regardless of their health, socioeconomic, or employment status. The IEA was first conceptualized by faculty in the College of Health, Education, and Human Development in 2001 and grew from a university collaborative to an Institute approved by the CU Board of Trustees in 2006. Faculty Associates with the IEA represent several disciplines in efforts to achieve the mission of IEA through their work ranging from cellular to societal levels. The IEA External Advisory Board regularly meets with IEA Faculty Associates representing agencies such as AARP, the state’s Office on Aging, the SC Hospital Association, White Oak Management, Inc. long-term care facilities, the Alzheimer’s Association as well as the State Senate.
A Look at Predominately Black High Schools in South Carolina and the SAT

The purpose of the study is to understand how African American high school students in South Carolina are performing on the SAT exam. The study will use data from the Charles H. Houston Center that compared predicted SAT scores to observed scores in all of the public high schools in South Carolina. Predicted SAT scores were determined by poverty and segregation (schools with an African American population of 70% and higher). Observed scores were the mean composite scores of each of the public high schools. In particular, this study will focus on the public high schools with a high African American population (<70%) that have lower observed SAT scores than predicted. The study will also highlight practical implications to help increase SAT scores for those schools that are underperforming.
Cross-Cultural Exchange Program: Building Global Citizenship

The *Activa tu Speaking* is a joint project between Berea High School (Greenville, SC) and Preparatoria #19 (Guadalajara, Jalisco, Mx). This is a bilingual/bi-cultural approach to language learning for students from both the United States and Mexico. In affiliation with International Leaders in Education Program (ILEP), the US Consulate General Guadalajara, Jalisco, and the Eugene T. Moore School of Education at Clemson University provided an opportunity for two Berea high school students and their teacher as well as two students from Preparatoria 19 and their teacher to travel to the home country of their language partners. This exchange program introduces different types of learning for both the students and the teacher. The four learning components identified in this student/teacher exchange program revolve around language, interpersonal, intrapersonal, and sociopolitical aspects of learning.

Creating global citizens allows “contemporary humanity to grow toward a greater recognition of shared humanity while at the same time protecting cultural distinctiveness” (Roberts, Welch, & Al-Khanji, 2013). Roberts et al. (2013) determined that one cannot truly understand global awareness and citizenship without understanding the developmental process. This project studies the global awareness of U.S. high school students and their teacher through a narrative approach in regards to the journal entries they provide prior to their departure, while they are in Mexico, and after returning to the U.S. The Berea High School students and teacher’s journal entries will be coded and analyzed with a particular lens on global citizenship.

The purpose of this program is for each language learner to realize the benefit of the commitment to becoming a more efficient language learner. Furthermore, the goal of this cross-cultural exchange program is to provide authentic experiences for the language learners to reflect on their personal learning as it applies to the diversity of the beliefs, values, ideas and social practices immersed in both cultures. The objective for this cross-cultural exchange program is for both the teacher and students to develop their awareness and understanding the importance of cross-cultural interactions in the 21st century.

This is a collaborative program among various partners within the Upstate and Mexico.

- Ms. Margaret Warner, Program Director, Clemson University
- Ms. Sandra Jara-Castro, Program Director, Preparatoria #19 University of Guadalajara
- US Consulate General (Guadalajara, Mexico)
  - Ms. Kathy Guerra, Consul Regional de Prensa y Cultura,
  - Ms. Maria Elena Saucedo, Asesora Cultural, Seccion de Asuntos Publicos,
- Mr. Mike Noel, Principal, Berea High School
- International Leaders in Education Program (U.S. Department of State and IREX)
- Eugene T. Moore School of Education, Clemson University
Impact of the College Ready Writing Program on Teacher Practice and Student Academic Writing

As an official National Writing Project site sponsored by Clemson, UWP offers professional development in the teaching of writing and literacy skills to K-12 teachers in the Upstate. The National Writing Project is a network of university-based sites that seeks to help schools improve their ability to teach writing and learning. In addition, the UWP provides an Invitational Summer Institute for K-16 teachers of writing and Youth Writing Camps.

The Upstate Writing Project is currently in the final year of a three-year, $1 million College-Ready Writers Program grant funded by U.S. Department of Education’s Investing in Innovation Fund with matching funds from the Rural School and Community Trust, and the Bill and Melinda Gates Foundation. Forty-four schools districts across the nation participated in a two-year study that aimed to improve 7th-10th graders ability to read informational text and write an argument based on evidence found in the text. Through the College-Ready Writers Program grant, UWP has served 6 rural school districts throughout SC: Florence 2, Greenwood 51, Union County, Anderson 3, Bamberg 2, and Orangeburg 4. The CRWP program provides professional development that focuses on changing teacher practices to improve the college and career readiness of students in grades 7-10.

The evaluation study indicates that CRWP had a positive impact on both teachers' instructional practice and student writing. The following components of the professional development have been identified as key contributors to the success:

1. Intensive, customized sustained teacher-led professional learning opportunities.
   a. Teacher-facilitated professional learning customized to meet teachers and students where they are
   b. Sharing of high quality classroom proven effective instructional materials

2. High-quality, teacher-created, adaptable curriculum materials.
   a. Teaching, not assigning, writing
   b. Engaging students in meaningful reading and writing of their choice

3. Formative assessment tools and processes.
   a. Analyzing student writing to plan for next instructional steps
Applying Complexity Leadership Theory to the Adoption of Evidence-based Practices in Computer Science Education

Much research has been conducted on evidence-based teaching practices in the context of Science, Technology, Engineering, and Mathematics (STEM) education. Although the best practices are shown to engage students in learning and broaden participation, adoption of these practices has been slow. We attempt to tackle this adoption problem through the use of Complexity Leadership Theory (CLT). The change that we seek to enable is the adoption and creative application of evidence-based practices in Computer Science education so that best practices such as active learning become the new norm. This is exploratory research as CLT has not previously been used in this context. To gauge our success, we will use complexity network analyses, attitude surveys, and other measures of engagement with respect to active learning. We will first gauge the level of evidence-based teaching practices currently occurring, and then through workshops, learning communities, incentives, and other methodologies, promote adoption of best practice evidence-based teaching practices.

Given the importance of student engagement for learning, the proposed project will benefit all students. Evidence-based practices such as active learning methods are particularly beneficial for STEM students from disadvantaged backgrounds, students from underrepresented groups, and female students in male-dominated fields. The benefits of the project will impact the entire faculty and student population of the School of Computing, and will institutionalize best practices that will continue to serve students in the future. The project will inform us how to effect change in academic institutions so that best educational practices are widely adopted. By developing an emergent model for creative change, the project can enable diffusion of best research practices in STEM education to reach educators and students, across not only computing, but all STEM disciplines.
Art Field Experiences in After School Programs: A University/School Partnership

The GoalPOST after School program (Goal-Oriented Performance in Out-of-School Time) is a 21st Century Community Learning Center grant that was awarded to the School of Education to Dr. David Fleming for three of the surrounding school districts. It is a partnership with Anderson districts 1 and 4, and Pickens County School district and Clemson University. The program aims to serve students who are at-risk and underprivileged, and provides homework help, academic support, and recreation opportunities. The program has partnered with Dr. Alison Leonard of the School of Education through her Arts in Education course with the objective of providing, 1) field experience for undergraduate students, and 2) an opportunity to partake in activities that are curriculum-based with an artistic component for the elementary students in the program. Elementary students also have the opportunity to experience a college atmosphere, and to interact with undergraduates in different study areas (majors). Teacher Education students at Clemson University participate in a required Arts Education course that provides field experience in a unique out-of-school time environment. The collaborators for this project are Dr. David Fleming (Clemson University School of Education – GoalPOST Program), Clemson University undergraduate students, Dr. Alison Leonard, and Anderson 1, 4 and Pickens School Districts.

The artistic skills and experience students need to be successful and to express creativity has decreased in elementary schools over the past few years as focus has shifted to core curriculum (math, ELA, etc.). Related arts classes such as art, music, theater, and the like have slowly been phased out of school curriculum across the country. The GoalPOST after School program and Dr. Leonard’s undergraduate course offer the opportunity to integrate core curriculum and the arts for elementary students. Teacher education students designed integrated art lesson plans and implemented those plans in the GoalPOST program. Along with the art component, students in the GoalPOST program who come to Clemson’s campus have the opportunity to engage with undergraduate students to learn more about the college experience, and to build college and career readiness skills that will help them navigate a 21st century work environment. This model would benefit those professors, administrators, or after school program coordinators who are interested in forming partnerships between the university and surrounding schools that are mutually beneficial.

To monitor success, we conduct a student survey that gathers information on what they’ve learned through completing the lessons, and allowed them to provide feedback on the sessions they attended. Anecdotal evidence from Teacher Education students was collected and showed that undergraduates who had this field experience felt well prepared for their student teaching.
What Matters: Race, Poverty, and SAT Scores in South Carolina Public Schools

While some colleges and universities are moving away from standardized tests such as the SAT in admissions, these tests are still a critical part of most college applications (Belasco, Rosinger, & Hearn, 2015). Historically though, African American students’ average scores on the ACT and SAT have been the lowest among all of the racial groups (Toldson & McGee, 2014), adversely affecting their ability to pursue postsecondary education. However, race is not the only factor that is negatively related to SAT scores. Much of this difference can be attributed to both segregated schools (Mickelson, 2006) and family income (Dixon-Roman, Everson, & McArdle, 2013). Given that many predominantly Black high schools in South Carolina are also poor, mean SAT composite scores in these schools can be expected to be lower than those in schools with fewer African American and more affluent students.

Multiple linear regression was used to determine the effects of racial segregation and poverty on SAT test scores in South Carolina public high schools. For these schools, the racial concentration of African American students and poverty were found to significantly predict mean composite SAT scores for 2015 (Adj. $R^2 = .667$, $F = 215.211$, $df = 2, 212$, $p < .001$). The regression equation generated was $M$ Composite Score = $1723.086 + -144.074 (%$ Afr. Am. Students) + $-425.832(%$ Poverty). The mean score for these high schools was 1382.17 with a standard deviation of 136.42.

A subset of high risk schools\(^2\) was selected for further examination. In these schools, the mean composite SAT score was significantly lower than for schools at lower risk ($t = 9.229$, $df = 213$, $p < .001$); the mean scores being 1228 and 1416 respectively. However, the mean composite SAT scores were considerably higher than predicted by the regression analysis given the racial composition and poverty level in these high risk schools. These schools performing significantly higher than expected should be carefully examined to determine what lessons could be learned from their experience and applied to similarly situate but lower performing schools.

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\(^2\) Schools with student populations of at least 70 percent Black or African American. The mean percentage of African American students in these schools is 86 percent and the mean poverty index percentage is 88 percent. The poverty index is a composite of the percentage of students in each district who are eligible for Medicaid and/or who qualify for free or reduced-price meals.
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Curriculum and Instruction  
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**Move Your Body to Code: Utilizing Embodied Cognition to Learn Computational Thinking**

My research involves working with an interdisciplinary team that has developed and utilized a novel software called VEnvl to teach middle school students basic programming (computational thinking) concepts and practices. This software and the curriculum that surrounds it is unique because it capitalizes the use of our body through dance to teach these concepts in an engaging and motivating way. The design of the software and curriculum is built on theory of embodied cognition that provides ways to explore the role of the body in cognition. This curriculum not only teaches programming concepts like loops and conditionals, but also programming activities like debugging, and involves sharing perspectives about what computer scientists really do! All this while dancing to Michael Jackson with a virtual character you programmed, even if you've never written a piece of code before!
N. Suzanne Falconer (nfalcon@clemson.edu)
Family & Community Studies

**Tilting the Odds: Teen Girl Resilience in the Democratic Republic of Congo (DRC)**

Abuse and violence is standard fare for the majority of poor girls in the DRC, the Rape Capital of the World. Trauma disturbs development and disrupts learning, grounding girls to lives of destitution. Adversity detonates sequelae of anxiety, depression, and anti-social behaviors. To reclaim these bright lives, youth advocates must activate common, but potent defenses that help girls not just survive, but thrive. Resilience is rebounding from trauma’s warp to resume the contours of emotional wellbeing and positive life growth. In challenging socio-ecological landscapes, resilient girls recruit three protective factors – internal, existential, and external – that cushion them from adversity’s blows. Internal factors are sturdy personal qualities. Existential factors are values of hope and meaning. External factors are life rafts from their families, schools, and communities. These outside systems are crucial when teens are fragile emotionally, unable to counter chronic threats. Risks can amass; protective factors can also layer to boost recovery from the cumulative crush of stressors. Tabitha Centers (TCs), three-year career schools, were created by local Congolese women to provide critical external support in the void of societal shelter and to build character, faith, and solid skills in the face of exploitation.

The purpose of this study was to examine Congolese teen girls’ perspectives on overcoming adversity, and the role of the TCs in fostering resilience. Interviews and focus groups were conducted with five school leaders and four focus groups with 12 girls (aged 18-25) at various stages of training. Discussion prompts came from the Child and Youth Resilience Measure-28, a tool used across cultures to measure components of resilience. A Congolese social worker led open discussions in Lingala, encouraging the girls to speak freely. The transcribed notes were systematized by protective factors. Themes arose of personal courage, determination, and of Rachel, a fictional heroine who succeeded despite difficulty. Many mentioned faith communities for their lasting values and mentors for needed moral support. They saw their education as transformational both emotionally and practically. This life training empowered them to become independent young women, able to meet their own families’ needs. They were no longer ‘nothing,’ but someone respected in their community. These conversations confirmed the power of protective factors, emphasizing the importance of the external elements in situations of chronic hardship. Above all, schooling that gave skills could change a girl’s life. Future research, therefore, must consider how to create educational opportunities for vulnerable girls to “tilt the odds” in favor of resilience, reversing the pain of the past, so that all young women may take their rightful places as productive people and emerging leaders in their own nations and in our global world.
Empathy and Extracurricular Involvement in Emerging Adulthood

Empathy is a foundational construct for emerging adults entering college as they explore their identity in the areas of love, work, and worldview. Empathy is associated with a number of prosocial outcomes, and is a quality sought after by diverse employers. A recent meta-analysis showed that empathy has declined among American college students in recent decades, but the malleability of empathy over the full course of the college years has not been studied in the existing literature.

This study sought to explore the malleability of empathy in emerging adulthood, and to determine if extracurricular activity involvement significantly predicted changes in empathy during the college years. Data for this analysis came from a longitudinal study of college males at a large, public, southeastern university studying sexual aggression across the college years. A total of 471 students, ranging in age from 18-21 during their freshman year, completed self-report surveys in the spring of their first through fourth years of college in 2008-2011.

Empathy was measured using Perspective Taking subscale scores from the Interpersonal Reactivity Index, a widely used measure of empathy. Changes in empathy over the course of the college years were explored to determine the malleability of empathy during emerging adulthood. Repeated measures analyses of variance were conducted for involvement in eight extracurricular activities and empathy scores over the four years of college.

Just over half of participants’ empathy scores remained in the same category (low, moderate, or high) during their first and fourth years of college (54.8%, N=258). However, more than one fourth of participants’ empathy scores increased to a higher category (28.7%, N=135), and 16.6% of participants’ empathy decreased (N=78), suggesting that empathy is malleable during the period of emerging adulthood. Repeated measures analyses of variance revealed that there was differential change in empathy based on high vs. no involvement in an academic club/honor society, $F(2, 468)=8.28, p<.001$; based on high vs. no involvement in having a job, $F(2, 468)=2.18, p=.015$; and based on any vs. no involvement in a fraternity $F(1, 469)=5.99, p=.015$. Involvement in an academic club and employment predicted positive changes in empathy, whereas fraternity involvement inhibited empathy growth.

Given extant literature showing significant correlations between empathy and a variety of prosocial and employment outcomes, empathy development of college students should be a matter of importance for educators, administrators, and other stakeholders in higher education. Findings of this study suggest that empathy is malleable among college students. Promotion of involvement in positive extracurricular activities which expose students to new peers and ideas, such as an academic club or employment, may offer promise in fostering improved empathy among college students.
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**Brand Image Re-Creation through Social Media Communication during Paris Terror Attacks**

Information shared through Social Media is becoming a source to alter perceptions of tourism destination brand images. The purpose of this study is to examine how social media platforms were utilized during November 2015 Paris terror crisis. The key issues to be explored include how social media is changing crisis communication, how traditional and new media are working together in a crisis for narrative construction of a destination image, and crisis communication planning for the future. While there is research on the development of branding destinations, there is little research done online on the process of brand image development concept. The aim is not just to understand what tourists associate the destination with, but also to define a relationship between the characteristics of users and destination image formation.

While the literature recognized the recent impact of technology on tourism experiences, empirical theoretical exploration remains scarce about how communication online shapes perceptions. Conceptual model builds on the Agenda Setting Theory because it looks at repetitions, sentiments and representations to understand the effects of mass media. Agenda Setting is the creation of public awareness and concern of salient issues by the media. In this research, Agenda Setting Theory is used to develop codes about existing algorithms on the online communication data that will reveal destination brand images. The analysis will involve massive and collective online social media public communication data. Methodology will be sequential mixed methods approach. The chosen methods to analyse data are qualitative and quantitative. The data will be extracted through Radian 6 software, which has been developed to achieve online data communication textual data. Content analysis is used to analyse data qualitatively. As well, the results of different descriptive statistics and exploratory and confirmatory factor analysis are used to indicate that online user-generated content exert important influences on re-creation of brand images. Ultimate aim is to understand terror impacts on destinations by constructing a conceptual model about new media information sources.

Purpose of this study is to advance agenda-setting theory as it relates to aggregate online communication behavior, while contributing to the debate on the future of media effects online. The anticipated results will yield the weight that different information sources exert in defining the overall information source construct. Thus, in this study adds web platform factors to explain the image formation and thereby moves beyond the influences of traditional, offline sources of information. The results of different descriptive statistics and exploratory and confirmatory factor analysis, will indicate that different websites, reflecting user-generated content, exert important influences and combine to form an information source construct. These findings in turn should offer several managerial recommendations as well.
**Obesity Paradox** in Hospital Mortality among Weight-loss Surgery Patients

**Objective:** With the increasing popularity of bariatric surgery among obese patients, the body-mass-index (BMI) cutoff point to determine surgery eligibility is a topic under debate. While most of the debates focus on the benefits of the surgery, in this study we explore its risks by examining the association between hospital mortality (patients “expired” during hospitalization for weight-loss surgery) and patient’s BMI.

**Methods:** We used an obese (BMI ≥30) adult subsample of weight-loss surgery visits from the Premier Healthcare Database 2011-14. ICD-9-CM procedure codes were used to identify weight-loss surgery cases, and discharge status (“expired”) was used to define hospital mortality. The association between the hospital mortality (dependent variable) and BMI categories 30-35, 35-40 (reference group), and >40 were examined in a multivariable logistic regression adjusting for age, gender, race, marital status, surgery year, and surgery types.

**Results:** There were 71,192 weight-loss surgeries during those four years with 170 cases of hospital mortality (“expired”). Compared to patients with BMI 35-40, those with BMI 30-35 and those with BMI >40 had significantly higher mortality risk (BMI 30-35: odds ratio=1.72, 95% CI=1.00-2.97; BMI >40: odds ratio=1.85, 95% CI=1.16-2.95).

**Conclusion:** This finding is consistent with the literature about the “obesity paradox” in clinical settings whereby patients in a higher BMI category had fewer complications than those at a lower category, calling for further investigations of the BMI cutoff point for the weight-loss surgeries. Further studies of comorbidities and complications among these patients are needed to understand the mechanism behind this “obesity paradox.”
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Awareness of State Education Policies for Immigrant Students
Among Pre-Service Teachers

South Carolina is arguably the most restrictive state in the nation when it comes to access to higher education for undocumented and Deferred Action for Childhood Arrivals (DACA) students. There are also restrictions on U.S. citizens with undocumented parents. However, many in the state are unaware of these education policies. This research looks at the awareness of this issue among freshman education majors at Clemson University and shows that students believe that South Carolina is more inclusive than it truly is. This could possibly reflect an incongruence between the ideals of justice and equality and the policies of the state.