

# PRESENTATION ABSTRACTS

## - Anthropology / Sociology -

### ***Disney and Gender Roles in Relationships***

*Presenters: Spencer Afriyie and Aaron Raines*

*Faculty Advisor: Gladys Schyrnemarkers, Ed.D.*

*Department: Anthropology/Sociology*

#### **Table #40**

The researchers wanted to evaluate the effects, gender roles portrayed in Disney movies, had on young adults. More specifically, the researchers examined whether or not, the gender roles portrayed in the movies affected their views on relationships. The research design performed by the researchers was a content analysis in an interview style. A variety of 16 students separated by gender, watched Disney clips, followed by a series of questions involving gender roles and relationships. The data seems to indicate that the male subjects were against the gender roles portrayed in the clips. The data also seems to indicate that the female subjects were offended by the gender roles portrayed in the films; however their opinions could be compromised by love.

### ***Iranian Military, Weaponry, and Conflict***

*Presenters: Justin Gioia*

*Faculty Advisor: Gladys Schyrnemarkers, Ed.D.*

*Department: Anthropology/Sociology*

#### **Table #41**

Iran's military, weaponry, and conflict has been an issue for several years but has become even more prevalent in recent years due to their growing nuclear program. Many western nations as well as bordering countries have feared Iran would use their nuclear capabilities to pursue weapons of mass destruction. Because of this heavy sanctions have been placed on the Iranian economy. However, an agreement has been reached between Iran and several world powers, including the U.S. to scale back their nuclear production to levels in which it could only be used for energy. In return for this agreement sanctions would be lifted. There is doubt among leaders or some countries that Iran will honor this deal and are calling for a total end to an Iranian nuclear program. This would likely be achieved only through military intervention, which has not been ruled out. The solution of keeping the heaviest sanctions in place for the next several years until it can be proven that Iran has only the ability to produce energy and not weapons should be adhered to.

## - Athletic Training, Health and Exercise Science -

### ***Type III Chronic Pelvic Pain Syndrome: Neuromuscular Dysfunction and Treatment of the Lower Trunk and Pelvis: A Case Study***

*Presenter: Aphrodite Daphnis*

*Faculty Advisor: Daniel O'Connor, M.S. ATC*

*Department: Athletic Training, Health and Exercise Science*

#### **Table #96**

Chronic Pelvic Pain Syndrome (CPPS) Type III—Chronic Nonbacterial Prostatitis represents by far the largest number of cases of men diagnosed with prostatitis. Although the pelvis has been explored already, the purpose of this study is to investigate the direct relation between Type III CPPS and neuromuscular dysfunction of the lower trunk in addition to the pelvis, in a single subject. Subject's discrepancies and progress have been monitored through a questionnaire, a personal interview, an initial

musculoskeletal evaluation, a two-month log pertaining to symptoms and associated history and treatment, a four-day nutrition log, and a physical rehabilitation program. Results indicate an overall progression in the subject's symptoms; however, modifications in daily activities, diet, rehabilitation and treatment will be implemented. If the subject's condition does not improve with these modifications, more thorough testing will be implemented to see if there are additional conditions that could be contributing to the problem. Alternative methods of treatment are intended to assist patients who suffer from Chronic Pelvic Pain Syndrome to find confidence in treating their condition, and ultimately to leading a healthier, more enjoyable life.

***Diabetes in the High School Football Player***

*Presenter: Gena Fuller*

*Faculty Advisor: Daniel O'Connor, M.S. ATC*

*Department: Athletic Training, Health and Exercise Science*

***Table #97***

While working with a high school football team in New Canaan, CT, the athletic training staff dealt with a diabetic athlete. The athletic training staff, team physicians, coaches, and any other authorized personnel made sure the diabetic athlete was given proper care throughout the season. • This project will present the pathology of diabetes, criteria for diagnosis, medications, management, and diabetes as it relates to injuries, tissue healing and rehab. • The setting will be the New Canaan High School's athletic facilities. • The athlete will be monitored daily throughout the season, which is approximately sixteen weeks. • The athlete's diet will be noted, and compared to the recommended "diabetic" diet. • Challenges of general medical illnesses in school settings with also be addressed

***ACL Injury: The Psychological Factors Influencing Return***

*Presenter: Brian Guzman*

*Faculty Advisor: Daniel O'Connor, M.S. ATC*

*Department: Athletic Training, Health and Exercise Science*

***Table #98***

While working with the Columbia university football team, an athlete sustained a second ACL injury within a one-year span. In the days that followed, the athlete had an extremely difficult time accepting his injury.

***Non-Contact Shoulder Dislocation in Collegiate Football Player: A Case Study Approach***

*Presenters: Joel Guzman*

*Faculty Advisor: Danny O' Connor, M.S. ATC*

*Department: Athletic Training, Health and Exercise Science*

***Table #99***

An anterior glenohumeral dislocation is described when the head of the humerus is forced out of the scapula at the glenoid fossa. Depending on the mechanism of injury, the glenohumeral joint can become dislocated anteriorly, posteriorly or inferiorly. This case study is to review the initial assessment, diagnosis, treatment and rehabilitation of an anterior shoulder dislocation secondary to a grade II acromioclavicular sprain. Over the course of a 15-year study, research has shown 2,910 shoulder injuries in Fall sports alone with football having the highest percentage. The mechanism for an anterior dislocation of the head of the humerus is forced horizontal abduction of the shoulder. Our athlete was first tackled by an opposing teammate during a scrimmage causing him to fall directly onto the lateral aspect of his shoulder leaving him with an acromioclavicular sprain. As the athlete continued to play the force of his shoulder moving forward as he threw the football caused his shoulder to dislocate anteriorly. This case study goes into further detail on the tests that were done to confirm anterior dislocation and acromioclavicular sprain; along with discussing the initial treatment and surgery performed on this athlete. The case study also goes into an in depth analysis on the patients rehabilitation process in order for him to return to play.

***Know the Skin You're In – Undiagnosed Rare Skin Condition in High School Football Player***

*Presenter: Amber Heath*

*Faculty Advisor: Daniel O'Connor, M.S. ATC*

*Department: Athletic Training, Health and Exercise Science*

***Table #100***

Background: While working with the high school football team, an athlete was undergoing treatment by the school Nurse and Athletic Trainer as needed for a rare, undiagnosed skin condition. The athlete was referred to numerous doctors to diagnose his condition, outbreak occurring November 2012, and to this day still no official diagnosis. • This project will present the history of the skin condition (signs and symptoms, possible triggers and differential diagnosis's), past medical and family medical history of the athlete, rehabilitation/treatment methods for the condition, various methods of diagnostic testing, psychological framework of working with not only the athlete but team in treating this condition. • The setting will be Poly Prep High School Athletic Training Room as well as Football Practices and Games. • The athlete will attend tape and dress 30-45 minutes prior to practice 5-6 times a week (depending on practice schedule). Athlete will report for treatment of active sites as needed prior to practice and after practice. • The athlete's sites of outbreaks will be photographed to document the active sites and watch its progression and/or diminishing symptoms/activeness. • The equipment needed to complete this project is a camera provided by parent, ointment for outbreaks, anti-biotic disinfectants, gauze, band-aids, pre-wrap and tape available in the athletic training room.

***Case Study: Opportunities for Public Health in Post Superstorm Sandy Southern Brooklyn***

*Faculty Presenter: Young Lee*

*Department: Athletic Training, Health and Exercise Science*

***Table #101***

Coney Island Hospital, the only true public medical center serving the greater southern Brooklyn communities of New York City, was hit hard and was closed due to the storm surge of Superstorm Sandy in October 2012. The modest community hospital serving a humble but a sizable community methodically evacuated and continued caring for all patients from other facilities. As the hospital center works to return all services, it does so under new realization that effectively caring for and serving its communities as it always has, now means preparing for and rebuilding to meet emerging natural threats. Being faithful to the public health mission in a naturally threatened area means guaranteeing that the facility and the organization can thrive even through natural disasters.

***Concussion in a College Football Player***

*Presenter: Yu-Wei Lin*

*Faculty Advisor: Daniel O'Connor, M.S. ATC*

*Department: Athletic Training, Health and Exercise Science*

***Table #102***

Background: Sport: Football. Position: Offensive guard (starter). Age: 20, red shirt sophomore. PmHx of three concussions: 1st in Spring 2011, LOC 2seconds, didn't report to anyone. 2nd during freshman season, no LOC. A doesn't remember when his 3rd was but no LOC. This project will present the information on concussion and post-concussion syndrome and the recovery/rehabilitation process of the football player. The setting is Wagner College Athletic Training room. The athlete will come in and report signs and symptoms on a weekly basis. The equipment needed to complete this project includes a variety of exercise equipment in the weight room.

***Scapholunate Ligament Tear with Perilunate instability and Median Nerve Compression: A Case Study***

*Presenter: Kathleen McCaffrey*

*Faculty Advisor: Danny O'Connor, M.S., ATC*

*Department: Athletic Training, Health and Exercise Science*

***Table #103***

Background: At an open gym during pre-season, an incoming freshman for the Men's Basketball Team sustained an injury to his left wrist. Diagnostic Testing showed the 17 year old had a scapholunate ligament tear. The physician performed three separate surgeries before the athlete could begin therapy. • The project will present the three surgical procedures the athlete underwent, including their outcomes and postoperative rehabilitative process. • The setting will be the Long Island University Athletic Training Room and Physical Therapy Clinic • The athlete will be attending approximately 60 minutes of therapy per day, five days a week. The pre and post-operative periods documented will cover approximately six months. • The athlete will be videotaped during the rehabilitation process. • The equipment needed to complete this project is a video camera, exercise equipment available in the athletic training room, and

surgical documents.

***Clinical Effects of Kinesio Taping for Shoulder Pain in Female College Athletes***

*Presenter: Ben Moes*

*Faculty Advisor: Daniel O'Connor, M.S. ATC*

*Department: Athletic Training, Health and Exercise Science*

***Table #104***

The Japanese Dr. Kenzo Kase developed the elastic taping technique in the mid 70s, while researching for a bland way to support the healing of musculoskeletal and neuromuscular problems. The adhesive pliable material is applied directly to the patient's skin and can be stretch up to 120 to 140% of its original length. The clinical application differs from classical tape in its mobility restriction. Kinesio Taping is used to re-educate the neuromuscular system, reduce subjective pain, support performance, prevent injuries, promote improved circulation and healing through an increased lymphatic-vascular flow and correct functional movement and positioning. Evidence-based results with musculoskeletal disorders support an immediate pain reduction while wearing the Kinesio Taping. After lower back pain, shoulder pain is the second most common pathology with subacromial impingement syndrome (SIS) being one of the leading causes of shoulder pain. Most athletic cases with SIS appear in consistent above the shoulder level arm motions. Kinesio tape practitioners are licensed healthcare providers such as physical therapists (-assistants), athletic trainers, occupational therapists, chiropractic doctors and massage therapists. The worldwide breakthrough appeared at the 1988 Olympic games in Seoul and since then Kinesio Taping has gained significant popularity. In November 2013 the NBA allowed players to wear Kinesio tape, which was strictly banned before.

***Brachial Plexus Neuropraxia***

*Presenter: Erica Rabe*

*Faculty Advisor: Daniel O'Connor, M.S., ATC*

*Department: Athletic Training, Health and Exercise Science*

***Table #105***

Brachial Plexus Neuropraxia (BPN) has affected nearly 50% of all collegiate football players. Chronic BPN can cause permanent neurological damage. My athlete suffers from chronic BPN (2+ instances per week), while in season. He continues to play through the pain and is suffering from neurologic and ROM deficits. He will undergo a six-week maintenance program to increase ROM and maintain cervical and shoulder complex strength. • This project will present the athlete's measurements (ROM, MMT, Special Tests) pre rehab, the rehabilitative program, BPN protocol and the athlete's post rehabilitative measurements. • It will take place at Columbia University's Athletic Training Room at Baker's Field. • The athlete will take part in a two-part rehab program; twice a week performing a cervical and shoulder complex strength maintenance program. Part two; a BPN rehab protocol to be performed after a BPN is sustained. • My preceptor and I will be monitoring the athlete during the rehab process. • The equipment necessary for this project: cuff weights, a treatment table, and a Bosu.

***Plantar Fasciitis in Long Distance Running***

*Presenter: Alisa Resnick*

*Faculty Advisor: Daniel O'Connor, M.S. ATC*

*Department: Athletic Training, Health and Exercise Science*

***Table #106***

Background: Long distance running is one of the most challenging and rewarding sports. It is terrific exercise, and helps individuals, ranging from high school students to senior citizens, maintain a healthy lifestyle. Long distance running usually starts around 3.1 miles (5K). When working with long distance runners, you will experience different injuries. One of the most common running injuries is plantar fasciitis. • This project will begin by discussing the benefits of long distance running, including training techniques, and basic nutrition. • This presentation will detail the anatomy and gait of a runner's foot. • This presentation will describe the causes and symptoms of plantar fasciitis. • This project will discuss ways to prevent plantar fasciitis. • This presentation will outline the rehabilitation process, including strength and range of motion exercises after the injury occurs, designed to get the athlete to return to running. A sample rehab protocol will be included as well. • The equipment needed to complete this project includes exercise equipment available in athletic training room, the gym or right at home.

### ***Anterior Cruciate Ligament & Lateral Collateral Ligament***

*Presenter: Genesis Villanueva*

*Faculty Advisor: Daniel O'Connor, M.S. ATC*

*Department: Athletic Training, Health and Exercise Science*

#### **Table #107**

Background: In August, during football practice, a wide receiver went to catch the football and landed improperly causing him to twist his knee. Athlete complained of severe pain over the lateral aspect of his knee and presented with immediate swelling over his knee. Diagnostics confirmed that the athlete tore his ACL and LCL. The wide receiver went for surgery to reconstruct his ACL and repair his LCL. He was then referred to Physical Therapy and the athletic training room for treatment and rehabilitation. • This project will discuss the anatomy of the Anterior Cruciate Ligament and Lateral Collateral Ligament • Discuss Pre-Op and Post-Op treatments of the athlete • Actual imaging of a normal and torn ACL and LCL, including the Athlete's incisions • This project will cover about fourteen weeks of rehab post-surgery, Including girth measurements to show the athletes improvement • The setting of the athletes rehab will take place at the Nassau Community College Athletic Training Room.

## **- Biology -**

### **Homeostasis of Glutathione Is Associated with Polyamine-Mediated beta-Lactam Susceptibility in *Acinetobacter baumannii* ATCC 19606**

*Presenter: Saboor Hekmaty*

*Faculty Advisor: Dong H. Kwon, Ph.D.*

*Department: Biology*

#### **Table #42**

Background: Glutathione is a tripeptide thiol compound in many bacteria and maintains a proper cellular redox state thus protecting cells against toxic substances. Polyamines are low molecular weight aliphatic polycations ubiquitously present in all living cells and modulate many cellular functions. We previously reported that exogenous polyamines significantly enhanced  $\beta$ -lactam susceptibility of multidrug resistant *A. baumannii* ("Polyamine effect"). Aim: The goal of this experiment was to further understand the mechanism of the polyamine effect. Methods: A transposon mutagenic library was constructed and mutants were tested for the presence or absence of the polyamine effect. Results: In this study, three genes differentially associated with the polyamine effect. All three genes encoded components of membrane transport system. One of the genes encoding a putative glutathione transport ATP-binding protein, which increased the accumulation of intracellular glutathione, significantly decreasing the polyamine effects on  $\beta$ -lactam susceptibility. Conclusion: Overall, these results suggest that exogenous polyamines induce the glutathione export resulting in decreased-levels of intracellular glutathione, which may produce improper cellular redox state that is associated with the polyamine-mediated  $\beta$ -lactam susceptibility of *A. baumannii*. This finding may provide a clue to develop new antimicrobial agents and/or novel strategies to treat multidrug resistant *A. baumannii*.

### **DNA Barcoding as a Tool for Taxonomic Verification Of Herbal Medicinal Products Sold in New York City**

*Presenter: Claire- Iphanise Michel*

*Faculty Advisor: Jeanmaire Molina, Ph.D.*

*Department: Biology*

#### **Table # 43**

Herbal medicine has quickly become the new commodity in health treatment. According to the National Institutes of Health, there are 38 million adults in the United States who use herbal medicines for health purposes. Herbal medicines are not regulated by the U.S. Food and Drug Administration (FDA) the same way as pharmaceutical medicines, but are treated as dietary supplements, and FDA relinquishes all responsibilities if therapeutic claims are made. This lack of regulation may result in unintentional misidentification to deliberate deception, and thus to illness and even death in consumers.

Misidentification may be easily addressed with the technology of DNA barcoding. DNA barcoding is a molecular tool for distinguishing species based on sequence variation of a short (<1000 bp) genetic marker common to a target group.

DNA barcoding has been used in distinguishing among animal species and is now being used in the seafood industry, but has yet to become a fully established practice in quality control of herbal medicine. In this research proposal, DNA barcoding will be used to investigate the taxonomic accuracy of herbal medicines sold in local stores in New York City using two genetic markers or DNA barcodes: rbcL and ITS2, which are universally present in the chloroplast genome of plants. At the time of writing, 45 samples have been purchased from a local herbal store in Brooklyn, NY, and rbcL and ITS2 was successfully amplified and sequenced approximately twenty of the samples. Comparative sequence analyses were conducted against the Genbank nucleotide database using BLAST.

***A Multiloci Approach to Resolve Deep Relationships in a Major Clade of *Thamnophilid* Antbirds (Aves: Passeriformes)***

*Presenter: Klodiana Jorgii*

*Faculty Advisor: Jose G. Tello, Ph.D.*

*Department: Biology*

**Table #44**

Phylogenies are fundamental to understand the origin and evolution of organisms. With the advent of molecular phylogenetics, our ability to uncover evolutionary relationships has greatly improved. However, the accurate reconstruction of relationships using molecular data can still be problematic because gene trees may not always reflect the species tree. One possible solution is to increase sampling of loci to help uncovering the species tree. In this study, we use a multiloci approach to resolve basal poorly supported/ambiguous nodes within a major clade of thamnophilid antbirds (Aves, Thamnophilidae) for which a conflictive signal between mitochondrial and nuclear markers has been reported (Tello et al., 2014, Zool. J. Linn. Soc. 170:546-565). Our preliminary results showed that the resulting tree from two novel nuclear introns (from ACO1 and ALDOB genes) is congruent with the mitochondrial topology, suggesting that the mitochondrial tree represents the species tree for this major clade of birds.

***Antibacterial Activity of Epigallocatechin-3-Gallate (EGCG) on Carbapenem-Associated Multidrug Resistant Clinical Isolates of *Pseudomonas aeruginosa****

*Presenter: Rashmi Kanagaratnam*

*Faculty Advisor: Dong H. Kwon, Ph.D.*

*Department: Biology*

**Table #45**

Background: *Pseudomonas aeruginosa* is a gram-negative bacterium that is mainly known to cause nosocomial and chronic infections in cystic fibrosis patients. Various antibiotics, such as  $\beta$ -lactams, aminoglycosides, and fluoroquinolones, are used to treat these infections. However, *P. aeruginosa* can acquire resistance to all these antibiotics quickly due to acquisition of resistant plasmids, mutations, or its inherent resistance. Antibacterial effects of epigallocatechin-3-gallate (EGCG), the main constituent of green tea, have been reported in mainly gram-positive bacteria. Aim: We aimed to understand antibacterial activity of EGCG and its usefulness on *P. aeruginosa* treatment. Materials and Methods: Twelve carbapenem-associated multidrug resistant clinical isolates of *P. aeruginosa* from Downstate Medical Center (Brooklyn, NY) were used to determine minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) of EGCG and in combination with antibiotics. Results: All clinical isolates showed MICs <256  $\mu\text{g}/\text{mL}$  and MBCs <512  $\mu\text{g}/\text{mL}$  for EGCG. Sub-inhibitory concentration of EGCG in combination with aztreonam, chloramphenicol, or tetracycline showed significantly lower MICs falling up to 128-fold than that of the antibiotic alone. Conclusion: Overall results suggest that antibacterial activity of EGCG alone or in combination with aztreonam, chloramphenicol, or tetracycline is effective enough to treat carbapenem-associated multidrug resistant *P. aeruginosa* infections.

***The Effect of Ascorbic Acid on Antibiotic Susceptibility in *Pseudomonas aeruginosa****

*Presenter: Meggy Lindsay*

*Faculty Advisor: Dong H. Kwon, Ph.D.*

Department: Biology

**Table #46**

Background: *Pseudomonas aeruginosa* is a gram-negative opportunistic pathogen, which is the main source of nosocomial infections. *P. aeruginosa* has become a growing problem due to its resistance to several antibiotics. Treatment of *P. aeruginosa* involves  $\beta$ -lactams, aminoglycosides, and quinolones. Treatment has become very difficult due to multidrug resistant *P. aeruginosa*. Ascorbic acid is an organic compound with antioxidant properties and exists in abundance in citrus foods and some vegetables. Ascorbic acid has been shown to have antibacterial properties towards certain groups of bacteria. Aim: We aimed to test antibacterial activity of ascorbic acid on *P. aeruginosa*. Methods: Eight clinical isolates of *P. aeruginosa* were obtained from Downstate Medical Center (Brooklyn, NY). Antibacterial activity of ascorbic acid was determined by minimum inhibitory concentration (MIC). Antibiotic susceptibility was also determined by MIC in the absence or presence of ascorbic acid. Results: All tested *P. aeruginosa* isolates were killed at 20 mM of ascorbic acid. When MIC levels of antibiotics were measured in the presence of ascorbic acid (10 mM), they were significantly lower than that in the absence of ascorbic acid for all isolates. Conclusion: These results suggest that ascorbic acid exhibits anti-*Pseudomonas* activity and also synergistic effects on antibiotics.

**Identification of a Gene associated with Polyamine-Mediated Beta Lactam Susceptibility**

Presenter: Jay Patel

Faculty Advisor: Dong H. Kwon, Ph.D.

Department: Biology

**Table #47**

Background: *Pseudomonas aeruginosa* is a Gram-negative opportunistic pathogen that is a frequent cause of hospital-acquired infections. Treatment usually involves the use of one or more antibiotics such as  $\beta$ -lactams, aminoglycosides, or quinolones. We previously observed that polyamines significantly enhanced  $\beta$ -lactam susceptibility in *P. aeruginosa*. We also found that an antioxidant (glutathione) was associated with the polyamine-mediated  $\beta$ -lactam susceptibility in *Acinetobacter baumannii*. Aim: We aimed to identify a gene associated with the polyamine effect on  $\beta$ -lactam susceptibility in *P. aeruginosa*. Methods: The PCR-amplified gene was knocked-out using bi-parental conjugation. The knocked-out *P. aeruginosa* was analyzed using minimum inhibitory concentration to  $\beta$ -lactam antibiotics in the presence or absence of polyamines. A Glutathione Assay was also conducted to observe changes in intracellular and extracellular GSH. Results: *P. aeruginosa* knock-out gene encoding the glutathione transport ATP-binding protein significantly negated the polyamine-mediated  $\beta$ -lactam susceptibility. The polyamine-mediated  $\beta$ -lactam susceptibility in the knock-out strain was fully restored by an intact gene of the glutathione transport ATP-binding protein. The glutathione assay measured an increase in extracellular GSH in wild type PAO1 while the mutant observed an increase in intracellular GSH. Conclusion: These results suggest that the polyamine-mediated  $\beta$ -lactam susceptibility is closely associated with glutathione homeostasis in *P. aeruginosa*.

**Antibacterial Activity of Glutathione and Its Synergistic Effect on Antibiotics in Methicillin-Resistant *Staphylococcus aureus* (MRSA)**

Presenter: Cleiford Senra

Faculty Advisor: Dong H. Kwon, Ph.D.

Department: Biology/Medical Microbiology

**Table #48**

Background: Methicillin-resistant *Staphylococcus aureus* (MRSA) is a gram-positive pyogenic bacterium known to cause septicemia, severe pneumonia, toxic shock syndrome, and serious skin and soft tissue infections. Clinical treatment for systemic MRSA infection is currently limited to non- $\beta$ -lactam antibiotics because MRSA is resistant to all existing  $\beta$ -lactam antibiotics. Glutathione (GSH) is an antioxidant that has been implicated in studies to have antibacterial activity in Gram-negative bacteria. Aim: We sought to determine if GSH exerted antibacterial activity on MRSA and whether GSH increased antibiotic susceptibility in MRSA. Methods: Minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) of GSH were determined for MRSA-Mu50. MICs of 6  $\beta$ -lactam antibiotics including vancomycin, ciprofloxacin, gentamicin, chloramphenicol, and tetracycline were also determined in the absence or presence of GSH. Results: MIC and MBC of GSH were 20 and 40 mM, respectively. MIC levels for all tested antibiotics in the presence of sub-inhibitory GSH (10 mM) were significantly lower

(>500-fold) when compared to the same antibiotics in the absence of GSH. Conclusion: GSH exerts antibacterial activity on MRSA-Mu50 and also strong synergistic effects on the antibiotics including the  $\beta$ -lactams. The medical implications of this study suggest reusing the previously ineffective antibiotics in conjunction with GSH against MRSA.

### **Metronidazole-Induced Antibiotic Resistance in *Helicobacter pylori***

*Presenter: Rida Sheikh*

*Faculty Advisor: Dong H. Kwon, Ph.D.*

*Department: Biology*

#### **Table #49**

*Helicobacter pylori*, a gram-negative human pathogen, infects more than half of the world's population, contributes to the development of chronic gastritis and peptic ulcer disease, and is an early risk factor for gastric cancer. Metronidazole is one of major antibiotics including amoxicillin, clarithromycin, and tetracycline to treat *H. pylori* infections. Resistance developments of the antibiotics are mainly mutations in genes, encoding oxygen-insensitive NAD(P)H nitroreductase (for metronidazole), encoding penicillin-binding protein (for amoxicillin), encoding 23S rRNA (for clarithromycin), and encoding 16S rRNA (for tetracycline). Metronidazole is a prodrug depending on levels of intracellular reduction of a metronidazole nitro group to form hydroxylamine free radicals, which is able to damage bacterial chromosomes. We hypothesize metronidazole selection pressure induces resistance to the antibiotics. To test the hypothesis metronidazole-sensitive *H. pylori* 26695 (~10<sup>9</sup> to 10<sup>10</sup> with 0, 2, 4, 8, or 16  $\mu\text{g/mL}$  of metronidazole incubated for 72 hours was spread on agar plates supplemented amoxicillin (0.5  $\mu\text{g/mL}$ ), clarithromycin (0.5  $\mu\text{g/mL}$ ), metronidazole (16  $\mu\text{g/mL}$ ), and tetracycline (2  $\mu\text{g/mL}$ ). We also examined clinical isolates of *H. pylori* failed metronidazole-containing treatment. Results revealed that metronidazole selection pressure induced resistance to metronidazole including clarithromycin and tetracycline in both the metronidazole-sensitive *H. pylori* and clinical isolates.

## **- Chemistry and Biochemistry -**

### ***Theoretical Assessment of 2' and 3' Substituted Indolylfulgides and the Design of Novel indolylfulgides***

*Presenter: Sumaiya Abedin*

*Faculty Advisor: Jonathan Gough, Ph.D.*

*Department: Chemistry*

#### **Table #8**

Indolylfulgides are a light induced isomerization photochromic molecules, which undergo pericyclic reactions. Using quantum TD-DFT//DFT we have benchmarked the effectiveness of Truhlar's M06 and M11 functionals for the ground and excited state of 35 known indolylfulgides. Electronic and steric effects of substituents on the indolylfulgides are the variables was used in tailoring and altering photochromes to yield the desired properties. Enhancing the photochromic properties of a known photochrome include increasing the difference between the maximum absorption wavelengths ( $\Delta\lambda_{\text{max}}$ ) and increasing the quantum yield or the efficiency of switching between isomers. The electronic or steric effect of substituents at four positions on the indolylfulgides was analyzed. These positions were: (1) C5' and C6' of the indolyl, (2) indolyl N, (3) C3 of CHD/HT, and (4) the reactive carbon (C6). The efficacy of TD-M06//M06 was assessed for the photochromic properties of 35 indolylfulgides. As a result, using TD-M06//M06 we have proposed and calculated the absorbance spectra of 17 novel indolylfulgides and 7 novel indolylfulgide dimers. The effect of conjugated and non-conjugated linkers on the theoretical dimer spectra and determined that linking via the 6-indolyl position is optimal. Using the computed properties, potential inter-conversion pathways of the novel dimers are presented and potential logic devices are proposed.

### ***Geometry Deformation and Mesomeric Effect at the Minimal-Energy Conical Intersections and Their Relationship to the Photoreactivity of Indolylfulgides***

*Presenter: Kellon Belfon*



*Faculty Advisor: Jonathan Gough, Ph.D.  
Department: Chemistry/Biochemistry*

**Table #9**

Minimum energy conical intersection (MECI) is the low-lying point on the CI hyperseam that facilitates ultrafast radiationless transition in photochromes. Time dependent density functional theory calculations using Maeda's updated branching plane method were employed in the study of indolyfulgides' structure at the MECI. Four criteria were used to effectively characterize the influence of the MECI structure on the photoreactivity of indolyfulgides; three of these criteria (molecular orbital, bond lengths and the height of C6 trigonal pyramid) were paramount to identifying one novel MECI structure and confirming 2 others previously reported.

***Understanding C-terminal Strand Interchange at the Binding Interface of Alpha Crystallin Oligomerization***

*Presenter: Hailin Huang  
Faculty Advisor: Jonathan Gough, Ph.D.  
Department: Chemistry*

**Table #10**

Alpha crystallins are small heat shock proteins that act as chaperones to prevent protein aggregation and crystallization in human eye lens. This chaperone activity depends highly on the polydispersity of alpha crystallin oligomerization. One factor that leads to the polydisperse nature of alpha crystallin oligomers is the strand exchange formed by alpha-B crystallin (ABC), which results from the palindromic sequence of the C-terminus on ABC. The palindromic sequence allows bi-directional bindings between opposing subunits, and thereby enables polydispersity. This novel approach will exploit the strand exchange interface in order to bias oligomer size populations and increase chaperone activity. In this study, we use molecular dynamics to model the binding between ABC and the opposing C-terminus sequence. And we apply Molecular Mechanics-poisson-boltzmann Surface Area (MMPBSA) and mutagenesis to identify new peptides with higher binding affinity for this exchange interface. We have identified two peptide mutants (I161L and T162S) with significantly higher binding affinity in the forward binding, and three (E156D, I159L and R163K) in the reverse binding motif. We examine the reliability of these calculations by analyzing and comparing hydrogen bonding interactions within ABC and between ABC and the C-terminus. Results show that the conformation of ABC changes when binding with peptides that yield lower affinities. Binding interactions at the interface between wild type and mutants are characterized and presented.

## **- Counseling and School Psychology -**

***Is Sugar a Drug?***

*Presenter: Lauren D'Mello  
Faculty Advisor: Mary Rayven Owens, Ph.D.  
Department: Mental Health Counseling*

**Table #78**

Our brains are hard-wired to find certain things pleasurable, such as eating and having sex. This brain "reward circuitry" ensures behaviors that are imperative to our survival are carried out. But many things that are not, in fact, necessary for life can stimulate this reward circuitry, including drugs, sugar, fatty foods, and even behaviors such as gambling and exercise. Stimulating this circuitry does not guarantee addiction; it only means that substances that act this way have the potential to be addictive.

***Participatory Action Research; Resiliency in Action***

*Presenter: Lisa Guyden, Xaviera Nichols  
Faculty Advisor: Wendi Williams, Ph.D.  
Department: Mental Health Counseling*

**Table #79**

The Participatory Action Research (PAR) model originated from the work of Paulo Friere who posited that education is best achieved through a bi-directional relationship of shared power. The initial provider of

knowledge shares the information to the recipient, however the recipient of the information is fully participating in the on-going process by providing their personal experience and “meaning” to enrich the education process; therefore encouraging the provider to impart knowledge that is culturally specific and appropriate to the recipient’s perception, rather than from the provider’s worldview. This “causality” mode, rather than linear mode, of communication seeks to improve learning conditions by understanding all the possible constructions of reality thus rousing reception of information by recipient and promoting empowerment. Similarly, the counseling process seeks this interaction through the process of building rapport. As such, the PAR model can be used in counseling group settings when working with adolescents in the format of group work. This mode of engagement can be powerful to individuals that feel disenfranchised by the “system”. Our project board illustrates how group progressed from a workshop to ongoing group work and demonstrates the implementation of the PAR model and its effectiveness educating and empowering members within the group.

### ***The Talent On Rikers Island***

*Presenter: Sara Schapiro*

*Faculty Advisor: Wendi Williams, Ph.D.*

*Department: Mental Health Counseling*

#### ***Table #80***

The Talent on Rikers Island is an art BlogSpot for inmates at Rikers Island. I run anger management and parenting groups at a substance abuse program in Rikers Island. Members would often come over to me and share a poem they wrote or a picture they have drawn. What appeared to be a mundane act-transpired into something beautiful. The members of the group began connecting to me through their artwork. Their work was full of emotion, passion, sadness, and pain. This presentation is grounded in the research of art and psychotherapy. I will present how the art is used as a medium in therapy and how my therapeutic approach was influenced by this dynamic, and finally how The Talent on Rikers Island BlogSpot began. For the first time the voices on the inside are being heard on the outside.

### ***SWAG, NYC***

*Presenters: Robbin Simon and Mileika Ward*

*Faculty Advisor: Wendi Williams, Ph.D.*

*Department: Marriage and Family Therapy*

#### ***Table #81***

The use of illicit drugs is common throughout the United States and is more prevalent in urban communities like New York City. Substance abuse increases the risk for many health problems, including unintentional death by drug poisoning, injury, sexually transmitted diseases and depression. The abuse of alcohol and other illicit drugs impairs the ability of parents and caregivers to ensure a safe, nurturing environment for children. Urban youth are endangered by the horrors of drug infestation in their neighborhoods, homes and environment. Parental substance use, curiosity and peer pressure may contribute to a child experimenting with drugs and alcohol. Addiction is a progressive disease which leads to adverse consequences that negatively impacts our children. @SWAG, NYC we will educate children about the effects of use and abuse of illicit drugs and alcohol. We will provide a welcoming safe milieu for children that are exposed to substance use. We will teach coping skills to encourage and promote resiliency. We will provide children with resources, information and other tools they need to succeed. Our youth are future leaders and need to be nurtured and empowered through knowledge. Our goal @ SWAG, NYC is for our children to Feel Better, Do Better, Be Better!

## **- Global Studies -**

### ***Acting on Change: Activist Theatre and Policy Development***

*Presenter: Emilie K Clark*

*Faculty Advisor: Jocelyn Lieu, MFA*

*Department: Global Studies*

#### ***Table #12***

This presentation is an interactive discussion of my undergraduate thesis on theatre as a tool for policy

development. In this thesis I look specifically at how the uses of activist theatre in Karur India, Rabat Morocco, and New York City can be examples of three distinct methods for theatre to become involved in policy development, specifically in the realm of women's rights. I will be using a poster to guide my presentation and provide a brief background on each of these three case studies, and then allow room for further questions about any of the studies. I will have a computer set up during this presentation where people can choose to watch videos from any of these case studies. Furthermore, if possible, I will be including short, interactive, theatre activities that were crucial to the development of one of these particular case studies. These are brief and do not require extensive space, just a bit of floor space near the table. I will also have some literature set up on the table for anyone who is interested in learning more to take.

### ***Urban Protestant Christianity in China***

*Presenter: Natalie Greene*

*Faculty Advisor: Rainer Braun, Ph.D.*

*Department: Global Studies*

#### **Table #24**

Christianity in China since 1949 has experienced periods of political cleansing, increasing government control, total illegality, and in recent decades, a huge resurgence in membership. As China undergoes massive economic and social changes, many Chinese people seek a holistic worldview and moral system to ground them. The Chinese Communist Party distrusts Christianity and seeks to control religious activities through the Three Self Patriotic Movement and the China Christian Council. Many Chinese Christians also view the government with wariness because of its attempt to diminish Christianity's growth and influence. I identified four major characteristics of Chinese Christians' experiences of religion based on my field work as well as published research. First, China is experiencing a crisis of belief in the government's legitimacy as well as traditional social bonds while China continues to rapidly change its social and economic structures. Second, for many believers Christianity is an internal and emotional experience. Third, Christianity provides social support from fellow believers that many individuals in China otherwise lack. Finally, identification with Christianity is a way of integrating with the global, specifically Western, community. For Chinese Christians, the religious experience will continue whether the government allows more autonomy to religious organizations or reverts to repression.

### ***U.S. Public Diplomacy as Relationship Management: Lithuania as a Case Study***

*Presenter: Travis Gunn*

*Faculty Advisor: Jocelyn Lieu, MFA*

*Department: Global Studies*

#### **Table #25**

Public diplomacy has gained increased importance in international relations and has garnered much discussion in the academic world in the last decade. Specialists in marketing, sociology, journalism, communication, public relations, and other fields provide arguments regarding what their respective disciplines can contribute to public diplomacy and what practitioners can learn from findings that are generated by studies. A multidisciplinary approach would continue to advance the practice of public diplomacy from being, in the popular view, the instrument for peddling information to foreigners, to the more versatile and multi-faceted profession that it has become today.

This presentation seeks to participate in the discussion, which asserts that public diplomacy is about building and maintaining relationships with foreign publics, civil societies, and cultures. More specifically, this work responds in part to the call by Fitzpatrick (2007, p. 211) to participate in building a research agenda that examines the "theoretical and practical links between public diplomacy and public relations," and "the need to map out the diversity of initiative political entities use to communicate with publics" idea advanced by Zaharna (97). In light of Wilson's (2008, p. 110) affirmation that public diplomacy scholars "tend to frame their arguments poorly, and their positions are often politically naïve and institutionally weak," this study will not try to validate political arguments or actions, but rather present and analyze diplomatic activities pertaining to the relational initiatives of public diplomacy, practices that are fast becoming "familiar fixtures in traditional diplomacy" (Zaharna, 2009, p. 93).

### ***Education Around the World***

*Presenter: Avery Holm  
Faculty Advisor: Jocelyn Lieu, MFA  
Department: Global Studies*

**Table #26**

Over the course of my internship with the Earth School, a progressive public elementary school in the East Village, I worked with students through the school's rooftop garden, the 5<sup>th</sup> Street Farm. I worked in conjunction with the science teacher, Abbe Futterman, to design and implement projects and activities that have students encounter and relate to nature in an urban environment. At the Earth School students learn about the environment, sustainable practice, and basic gardening technique through hands on experience. Along with the projects and teaching students I worked with creating simple lesson plans that connected the rooftop garden to other subjects like art, math, and English, that developed the garden into an interdisciplinary learning space.

***Medical Tourism in Costa Rica***

*Presenter: Caroline Jones  
Faculty Advisor: Jocelyn Lieu, MFA  
Department: Global Studies*

**Table #18**

In the past decade medical tourism has become a well-known term especially amongst Americans. It is no secret that the healthcare industry in the U.S. is one of the most expensive and with many Americans being uninsured or underinsured it is nearly impossible for many citizens to receive standard health services without facing an enormous amount of debt. Medical Tourism is a growing industry around the world; Thailand, India, and Israel are three locations that are the well known for their modern facilities and well trained staff, which has brought in many medical tourists year after year. In recent years Costa Rica has become an attractive location for North Americans to receive medical attention. In addition to its high quality medical services, Costa Rica is in close proximity to the U.S. and has a reputation as a tourist's paradise. Although the medical tourism industry in Costa Rica is just beginning to take off, it has in fact been on the map as a medical tourism destination for a smaller population since the 1970's.

***Cultural Representation in Tea***

*Presenter: Nicole Kangos  
Faculty Advisor: Jocelyn Lieu, MFA  
Department: Global Studies*

**Table #14**

This presentation will demonstrate how tea is an important representation of culture. For this presentation, I will mainly focus on Turkey which is one of the largest tea markets in the world. I will present the history of the tea and how the patterns of consumption have changed over the century. I will discuss hospitality and the interpersonal effects tea has on Turkish culture. At the presentation, I will also serve tea and demonstrate the art to making, serving, and drinking Turkish tea. Ultimately, I will demonstrate that through the art of tea, we can exchange culture.

***Fair Trade and Mercado Global***

*Presenter: Rachel Magruder  
Faculty Advisor: Jocelyn Lieu, MFA  
Department: Global Studies*

**Table #15**

In a day in age when countries are connected through business, cultures, the internet, and increasing travel, there has been a growing awareness of issues in and around exploited workers of exported goods. Mercado Global aims to ethically create a sustainable business model connecting Guatemalan artisans to boutiques and vendors in the United States, Canada, and France. Their focus on quality and stylish handbags has proven successful over the past ten years, and has continuously expanded towards a model to be replicated by all fair trade wholesalers.

***The Fight for Climate Justice: The Resistance to Tar Sands in Canada and the US***

*Presenter: Olivea M. Martin  
Faculty Advisor: Kathleen Modrowski, ABD*

*Department: Global Studies*

**Table #16**

This presentation focuses on the intersectionality of environmental degradation and social injustices towards the indigenous communities across the United States, and Canada. I will examine how resource extraction affects indigenous peoples, how they resist and fight for climate justice. I will use the case study of the refining of tar sands in Alberta, Canada and the pipeline that carries the tar sands that will cut through Native American reservations. I will examine the effects on the land and on human health and specifically looking at how Indigenous Peoples are being targeted. I will also discuss my work with Peaceful Uprising, which is an organization committed to climate justice through non-violent direct action, community organizing/development and education efforts. Their main campaign at the moment is resisting the tar stands in Canada, the pipeline and the mines that are trying to open in Book Cliffs, Utah.

***Conservation Practices in a Wildlife Sanctuary in Namibia***

*Presenter: Claire Morehouse*

*Faculty Advisor: Rainer Braun, Ph.D.*

*Department: Global Studies*

**Table #22**

I spent the Fall semester of my senior year at LIU Global volunteering at a wildlife sanctuary practicing conservation in Namibia. Species cared for at the sanctuary include baboons, cheetahs, leopards, wild dogs, and many others. In Namibia, many of these animal species are seen as pests or threats to livestock, so farmers, poachers, and others often harm or kill them. Most of the animals at the sanctuary are orphaned by the hands of humans, and are unable to survive on their own in the wild. Though the animals would ideally be rehabilitated and re-released, this is often not an option. In these cases, the sanctuary commits their care for the remainder of each animal's life. The sanctuary also takes measures to avoid and resolve these human-animal conflicts. Some of the techniques practiced at the sanctuary include collaring wild cats and hyenas, conducting research on wildlife species, and presenting findings for education. My poster will present the reasons and techniques of these conservation practices.

***The Social, Emotional, and Behavioral Benefits of Music Education***

*Presenter: Johanna Nilsson*

*Faculty Advisor: Kathleen Modrowski, ABD*

*Department: Global Studies*

**Table #20**

This study examines adolescent perceptions of the emotional, social, and behavioral benefits of participation in a choir at Mountain View High School in Mountain View, California. Current and former students and parents identified over ninety-nine variables, or impacts, that they believe choir had on its members, including: increased ability to recognize and correct mistakes, to accept and apply constructive criticism, to negotiate and compromise with peers, and to interact in a variety of social situations. Additionally, students reported positive emotional impacts, such as an increase in self-confidence and willingness to take risks. These findings could have ramifications for the future of music education, as educators integrate social values into their curricula and use music as a tool to affect students' abilities to interact in the world.

***The Dharma of Ecology***

*Presenter: Emory O'Donnell*

*Faculty Advisor: Jocelyn Lieu*

*Department: Global Studies*

**Table #23**

This Discovery Day presentation is entitled "The Dharma of Ecology." This presentation will be based off the work and research that I completed for my Senior Independent Study Semester with LIU Global in the Fall of 2013. The poster will contain a photograph that I took while in Nepal, which is a visual illustration of the relationship that religion and ecology have in parts of the world that Tibetan Buddhism is practiced – in this case, Nepal. The verbal presentation that I plan to deliver in addition to the poster will illustrate the main ideas that my research was focused on. Below are the major aspects of my presentation:

Religion has been looked upon by many as a possible source of influence for the imagination of and reintegration of humanity in nature. Tibetan Buddhism is often referred to as a rich source of the social and environmental ethics desperately needed in the debate on fixing our global environmental crisis. Certain Buddhist scriptures, namely the scriptures dealing with theories of interdependence, have been continually referred to as possible combatants to modernity's spiritual and environmental malaise. These sacred teachings, when viewed through an ecological lens, serve as powerful tools for unraveling and reconditioning the anthropocentric values that are exploiting natural resources and stressing the global system so ruthlessly.

Through a general discussion of certain Tibetan Buddhist teachings, this presentation will offer to visitors a deeper understanding of how the teachings of Buddhism can enhance and promote environmental consciousness and action. A general description of the teachings on interdependence specifically, and how this can be understood in ecological terms, will help the visitor grasp the major idea behind my research.

***Microfinance in the Philippines***

*Presenter: Keith Saleo-an Scott*

*Faculty Advisor: Rainer Braun, Ph.D.*

*Department: Global Studies*

**Table #21**

Due to the success of Microfinance, the following is a report on research conducted in Cabanatuan City, Philippines and its surrounding areas. Alalay sa Kaunlaran, Inc. (ASKI) - a Microfinance Institution - assisted the research in providing access to its clients and services. In exchange, I interned in the ASKI Research and Development Department (R&D) and ASKI Foundation. The focus was to determine the effectiveness of Microfinance as a tool in poverty alleviation.

***Portrait of a Dying Planet***

*Presenter: Stephen Schneider*

*Faculty Advisor: Jocelyn Lieu, MFA*

*Department: Global Studies*

**Table #19**

As the Global Ecological Crises begins to demonstrate the negative effects that human-caused climate change may have in the future, many people and organizations are developing tactics and strategies to address and adapt to an uncertain global environment. My independent research has critically investigated the philosophies and practices of sustainability and holistic design. This presentation will highlight some of this research in order to educate my colleagues on the current research and efforts being developed to stave the negative impact of climate change around the world.

***Central American Migration Patterns in the U.S.***

*Presenter: Noemi Soto*

*Faculty Advisor: Jocelyn Lieu, MFA*

*Department: Global Studies*

**Table #13**

In this study I will be looking at the areas in which migrants from Central America settle in the United States. I seek to explore why certain areas have a higher concentration of Central American migrants and how these areas have been impacted by the Central American community. The political climate and the importance of migration as a hot topic in the United States gives relevance to this study, as it is important to understand the patterns of this particular group as it grows in numbers. It is important, through these kinds of studies, to note how the migration patterns of this group can possibly be reflective of the political agency they may or may not be gaining simply by the cities they choose to migrate to. The research for this study was done through PEW Hispanic Research Center and the Migration Policy Institute. These sources provided national statistics of migration patterns in the United States. Other relevant works that gave a deeper insight into migration culture and Hispanic culture and history were *Exceptional People* by Ian Goldin, et.al., and *Las venas abiertas de América Latina* by Eduardo Galeano.

***The Peres Center for Peace***

*Presenter: Ofri Tischler  
Faculty Advisor: Jocelyn Lieu, MFA  
Department: Global Studies*

**Table #17**

The Peres Center for Peace is a non-profit aimed at conducting peace-building activities between Israelis and Palestinians, Jews and Arabs. It focuses on people-to-people activities as a way of breaking down stereotypes, getting to know the "other" side, and creating an understanding of the different narratives that exist concerning the Israeli Palestinian conflict. The Peres Center was founded in 1996 by Nobel Prize Laureate and current President of Israel Shimon Peres. Peres founded the foundation following the failure of the Oslo Accords and the murder of then PM Yitzhak Rabin, with the purpose of bringing together Israelis and Palestinians, Jews and Arabs to create a more solid platform for peace, out of the belief that one of the reasons for the failure of the Oslo Accords was the fact that the populations were not ready for peace.

***Bilingual Education***

*Presenter: Marie Tornquist  
Faculty Advisor: Jocelyn Lieu, MFA  
Department: Global Studies*

**Table #27**

As part of my Discovery Day presentation I will be exploring how humans learn languages and some language learning myths. I will be looking into different dual language program models such as transitional programs for English Language Learners, Immersion Programs, and Language Maintenance Programs. I will also touch on the importance of Bilingual Education, as well as other hot topics surrounding the issue of Bilingual Education.

## **- History -**

***Where Comedy Went to School***

*Faculty Presenters: Joseph Dorinson, M.Phil.  
Department: History*

**Table #11**

This lecture takes listeners on an informative, hilarious journey east of Eden, west of the Moon, and 100 miles north of New York City, where a generation of Jewish comedians honed their craft in the resorts of the Catskill Mountains. This "Borscht Belt" became the training ground for the modern American stand-up comic: the sad nebbish (poor soul) whose troubles are greater than life, and whose kvetch (complaint) is cosmic as well as comic. Performers tempered on the Catskills resort circuit range from Sid Caesar to Mel Brooks, Alan King to Lenny Bruce, Woody Allen to Joan Rivers. However different they seem, these stand-up and situation comics are distinguished by a singular ability to capture their complaint in verbal music, a torrent of words that develops into improvisational jazz. For decades, their comedy has brought relief from the tsores (troubles) that confront all Americans.

## **- Honors -**

***Gender Communication through Mobile Devices in a Relationship***

*Presenters: Rebecca Khaimova, Natalya Romanyak  
Faculty Advisor: Gladys Schrynemakers, Ed.D.  
Department: Sociology*

**Table #28**

Mobile devices have particularly influenced the way communication occurs in a relationship. Females and males assume different roles in their technological usage. We researched two major topics. The first topic that was researched consisted of whether females and males communicate differently in their relationship. The second aspect that was researched consisted of whether or not these same differences in communication are portrayed when communicating through their cell phone. The researchers used a

survey in order to try to reach a greater public of emerging adults in long-term relationships. Many of the different ways that females and males communicate through their phone can be explained by different gender needs in a relationship. Therefore, the phone can be equally useful when trying to catch up and maintain communication, but it can cause miscommunication and issues due to the needs of both genders not being fulfilled.

### ***Intentional Blindness Among Professional & Liberal Arts College Student Majors***

*Presenter: Lisa Lin*

*Faculty Advisor: Gladys Schrynemakers, Ed.D.*

*Department: Honors*

#### **Table #29**

Research on misinterpretation of visual data has led to the discovery of a phenomenon known as “intentional blindness” or “selective attention.” I examine the findings of a landmark study by Dr. Daniel Simons, *The Invisible Gorilla*, comparing intentional blindness in college students pursuing professional degrees and those pursuing liberal arts degrees. A series of survey questions and a video, *The Monkey Business Illusion* were used to demonstrate the effects of intentional blindness among 60 college students (30 Professional majors and 30 Liberal Arts majors). The survey and video was shown again to the same 60 college students one week after they were exposed to intentional blindness. According to the data, more than 50% of Professional college student majors tend to be more affected by intentional blindness than Liberal Arts college student majors in the first week and both tend to seek the ‘invisible gorilla’ in the second week. The study reveals some surprising differences in the capacity of students to correct for intentional blindness that correlate with choice of major. Due to pre-exposure and prior knowledge of the terminology ‘intentional blindness’, Liberal Arts college student majors are more aware and tend to seek the ‘invisible gorilla’ more often than Professional college student majors.

## **- Library -**

### **The LIU Brooklyn Library Media Center**

Faculty Presenters: Lisa Rivera and Patrick Jewell

#### **Table # 1-2**

The LIU Brooklyn Library Media Center is a unique and invaluable resource for all disciplines at LIU. This presentation is a look into the collections and services of the Library Media Center. We will use examples from our collections, our online newsletter, and a photo tour of our space.

## **- Nursing -**

### ***New York City Smoking Cessation Program Assessment***

*Presenter: Anna Kilian-McGowan*

*Faculty Advisor: VR Small, MHS*

*Department: Nursing*

#### **Table #85**

The purpose of this study was to identify standards among smoking cessation programs in New York City, as foundational data to construct a similar program at University Health and Medical Services (UHMS) in collaboration with the College of Pharmacy and The Brooklyn Hospital Center. Representatives from 26 hospital, clinic and non-profit smoking cessation programs were surveyed about duration, structure, cost and treatments offered. Answers were recorded in an Excel spreadsheet and calculated to establish common themes. Pre-screening was mandatory in 11 programs. Nineteen programs had no specific duration, while seven required consecutive sessions for 2 to 8 weeks. Engagement via individual counseling represented 23 programs, followed by 17 group, 15 telephone, with 54% offering a combination of treatments. Session duration ranged from 15 and 120 minutes, with the average of 50 minutes. Common treatments included 21 programs offering nicotine patches, 19 gum, 14 conventional treatments, and 13 prescription medications. Eighty-five percent of the programs were free and four



charged from \$75 to \$140 per session. Recommendations for establishing specific smoking cessation program for employees and students via UHMS will be developed from this assessment.

### **Implementing Interprofessional Education in the Clinical Setting: A Pilot Study**

*Faculty Presenters: Diane Maydick, M.S.N., Ed.D.; Cindy Bravo-Sanchez, M.P.A., R.R.T., N.P.S.;  
Suzanne Carr, Pharm.D., Ph.D.; Mary Kiely  
Department: Nursing*

#### **Table #86**

Purpose: Interprofessional Education (IPE) is recognized as important for healthcare professionals who provide patient centered care<sup>1</sup>. The Center for the Advancement of Interprofessional Education defines IPE as “Occasions when two or more professions learn with, from, and about each other to improve collaboration and the quality of care”<sup>2</sup>. IPE should be embedded into “teaching, research, clinical work, service, and other academic functions”<sup>3</sup> and is recommended as a guiding principle to improve healthcare outcomes<sup>4</sup>. A clinical practicum was designed where nursing and respiratory students could participate in IPE<sup>5</sup> with residents in a rehabilitation facility. Design, setting, and methods: A pilot study was conducted using an evidence-based practice model. Students participated in a variety of IPE activities. Results: 93 % (n = 13) agreed or strongly agreed that shared learning before graduation, increased their ability to understand clinical problems and will help them become better team workers in the future and 86 % (n = 12) agreed or strongly agreed that having learned together will help them become more effective members of a health care team in the future, along with better communication. Future plans include use of a valid and reliable instrument to measure students’ and professional perceptions of IPE<sup>10</sup>.

## **- Occupational Therapy -**

### **Health, Wellness and Occupation: Making Links through Theory and Practice**

*Faculty Presenters: Michael Pizzi, Ph.D., OTR/L, FAOTA; Max Krasnov, OTS  
Department: Occupational Therapy*

#### **Table #50**

The OCHP makes a link between occupation and health. If occupational therapy assistants and occupational therapists accept that those are appropriate targets for their intervention, the OCHP definition of health promotion as “the process of enabling people to increase control over, and to improve their health” (WHO, 1986, p. 2) clearly provides a mandate to become involved in health promotion. The OCHP calls for health professionals to “move increasingly in a health promotion direction” beyond “responsibility for providing clinical and curative services” (WHO, 1986, p. 4). Recently, Hildenbrand and Lamb (2013) similarly impress upon the profession of OT to move in the direction of health and wellness. This poster will discuss the role of OT in health promotion and wellness through exploring theory, assessment and intervention. Discussion will focus on the use of a new OT health and wellness related assessment, an intervention plan and outcomes on a single case. Future implications for the profession of occupational therapy will be examined.

### **Promoting positive mental health using an occupation based assessment and intervention**

*Faculty Presenters: Michael Pizzi, Ph.D., OTR/L, FAOTA; Tani Guterman, OTS  
Department: Occupational Therapy*

#### **Table #51**

In today's stressful times, one's mental health is constantly being challenged and tested. In order to become aware of a mental health issue, one must understand that such an issue exists. Only through the use of appropriate client and occupation-based assessment can an intervention then be explored. Occupational therapy seeks to provide intervention to account for mental health issues through the use of meaningful tasks (Reitz, 1992). By developing client centered intervention to create positive mental health, the client's life may be improved through the impact on their mental health (Strong, 1998). Through the use of custom designed interventions that best suit the client's needs, the client may see physical and psychological improvement (AOTA, 2010). This poster will demonstrate the role that occupational therapy plays in improving the lives of those with mental health issues in society. By providing a study of a middle-aged woman with mental health issues, the effects of an occupation and

client-centered intervention will be discussed. The poster will further discuss the application of theory that supports OT intervention. Discussion will include the use of the Pizzi Health and Wellness Assessment (PHWA), a mental health and wellness plan, as well as re-assessment. The role of occupational therapy and its impact on the client will be explored. This poster is based on a class assignment.

***Health and Wellness Assessment and intervention in Epilepsy and Depression Using an Occupation Based Approach***

*Faculty Presenters: Michael Pizzi, PhD, OTR/L, FAOTA; Christine Gendy, OTS  
Department: Occupational Therapy*

***Table #52***

Individuals with epilepsy suffer from the frightening and perplexing experience of seizures in addition to fear of having a seizure in public and the confronting stigma of epilepsy. As a result, people with epilepsy may encounter decreased quality of life, which may lead to various mental disorders. Studies show that depression is the most frequent comorbid psychiatric disorder in epilepsy (Panjwani et al., 2000).

The American Association of Occupational Therapy (AOTA) suggests that the overall goal of occupational therapy mental health practice is to help people develop the skills and acquire the supports necessary for independent, interdependent, and productive living (American Association of Occupational Therapy [AOTA], 2007). In addition, precise importance is given to interventions that result in improved quality of life and decreased hospitalizations (AOTA, 2007). Building on the AOTA foundation of promoting health and increasing quality of life, it is the role of occupational therapists to provide individuals suffering from epilepsy and comorbid mental disorders with meaningful, goal-oriented occupations and activities that teach and facilitate skills in many areas such as activities of daily living, cognition, self-awareness, interpersonal and social skills, stress management, self-sufficiency, and wellness.

This was a classroom assignment that discussed the role of occupational therapists in promoting mental health and quality of life. This poster describes OT's role in health promotion through theory, assessment and intervention. Discussion focuses on a client-centered and occupation based assessment, an intervention plan and outcomes on a single case. Future implications for OT practice will be examined.

## **- Pharmacy -**

***Phosphate Binders Evaluation in Chronic Kidney Disease Patients***

*Presenters: Tommy Huynh, Trung Pham  
Faculty Advisor: Timothy Nguyen, Pharm. D.  
Department: Pharmacy*

***Table #53***

Chronic Kidney Disease (CKD) is a very complex disease condition and often time CKD patients have multiple co-morbid conditions such as diabetes and hypertension. CKD can lead to many complications that may include anemia, mineral and bone disorders, fluid overload, cardiovascular-related problems, infections, and among many others. Therefore, CKD patients are frequently received complex medication regimens. One of the complications is associated with the increase risk for developing hyperphosphatemia and this can lead to the development of severe hyperparathyroidism, soft tissue calcification, calcification of the lung, morbidity and mortality. The mainstream therapy for managing hyperphosphatemia is phosphate binders, vitamin D therapy, cinacalcet and dialysis. Controlling serum phosphorus levels in CKD patient is a challenge due to decreased excretion from the body, high dietary P consumption, high phosphate-binders load and patient non-adherence. This is a retrospective data analysis study of phosphate binders to help identify potential drug safety risks, medication-related harm, appreciate the key safety concerns of complex medication regimen and improve the care of CKD patients.

***Prevalence of Adverse Drug Events and Organ-Based Disease States Requiring Interventions***

*Presenters: Iliya Isakov, Evelyn Ong, Jubaida Ahmed and Lyubov Rafailova  
Faculty Advisor: Timothy Nguyen, Pharm.D.  
Department: Pharmacy*

***Table #54***

Purpose: The purpose of this study is to collect data and assess the prevalence of ADEs within the DOM. Furthermore, the goal is to uncover the disease states, which most commonly require interventions to drug therapy. From these findings, data can be extrapolated to determine the areas of medicine will benefit most from pharmacist involvement. Methods: 60 patients from the DOM at Mount Sinai Medical Center were followed between September-October 2013. These patients were evaluated for the appropriateness, efficacy and safety of their medication regimens. Upon review of patient medical records and discussion with the rounding teams, 4 pharmacy students identified 60 interventions that needed to be made, with regard to the medication regimens of the patients. Included in these, there were 20 ADEs that were identified, in the process of assessing the patients. The results of the 4 pharmacy students were combined and the data was assessed. Results: Of the 20 ADEs found, 40% (n=8) involved the GIT (with Anticoagulants, ARV, Antibiotics, Opioids). Likewise, 25% (n=5) of the ADEs involved cardiovascular ADEs such as QTc prolongation (with Antibiotics, Antiarrhythmics) and fluctuations in BP and HR (with BBs and ACEIs). With regards to interventions, while the most common interventions were made in the areas of infectious diseases (18%) and pain management (16.67%), all of the other disease classes had a comparable need for pharmacist interventions. Conclusion: While it was found that most of the ADEs involve the GIT, it could not conclude that any one disease state requires significant input from the pharmacy team than all other disease state classes. Findings showed infectious diseases and pain management required the most interventions from the pharmacists.

### **Assessment of Organ Donor Misconceptions**

*Presenter: Sharon Jobity*

*Faculty Advisor: VR Small, MHS*

*Department: Pharmacology*

#### **Table #55**

This project was possible due to the combined efforts of the Directors of Health Promotion and Education (DHPE) Internship, University Health and Medical Services (UHMS) and the Health Initiative Peer Educators (HIPE) program. During spring 2013, University of Health and Medical Services (UHMS) implemented an organ donor education program within the LIU Brooklyn campus community. The organ donation program was geared to provide health equity with respect to access to information; assessment of misconceptions associated with organ donation and to stimulate an increase in the number of organ donors within the campus community. At the time of this assessment the sign up rate for New York State was 21% one of the lowest nationwide. While the immediate benefit of stimulating increased awareness to this issue was to increase sign up rate for organ donation, the more profound issue was to encourage higher order thinking, implementation, and adoption of positive health choices at a personal level. This presentation will focus on the educational outcomes from this program.

### **HIV/AIDS Awareness Assessment**

*Presenter: Sharon Jobity*

*Faculty Advisor: VR Small, MHS*

*Department: Pharmacy*

#### **Table #56**

This project was possible due to the combined efforts of the Directors of Health Promotion and Education (DHPE) Internship, University Health and Medical Services (UHMS) and the Health Initiative Peer Educators (HIPE) program. A HIV/AIDS education program was implemented in the LIU Brooklyn campus community during spring 2013. The purpose of the program was to test the community's basic understanding of HIV/AIDS as well as to promote/engage at least 10% of the population via testing. This program remains critical to the LIU- Brooklyn community given the diversity of its population reflective of a large percentage of African and Hispanic Americans statistically shown to be adversely impacted by this disease. The objective of the HIV/AIDS program was to increase education and access to HIV/AIDS testing. The expected benefits from this program are increased understanding of HIV/AIDS, a reduction in risky sexual behavior, reducing the spread or mortality of HIV infection, early diagnosis with increased HIV testing, which translates into access to earlier treatment and prolongation of life. This presentation will focus on the educational outcomes from this program.

## - Physical Therapy -

### ***Using e-Portfolios to Promote Reflection and Life-Long Learning in Physical Therapy Students***

*Faculty Presenters: Cristiana Kahl Collins, PT, Ph.D., CFMT, NCS, Nicki Silberman, PT, DPT,  
Stacy Gropack, PT, Ph.D.*

*Department: Physical Therapy*

#### **Table #108**

Reflection has been described as the key to learning with reflection-in-action being the difference between an expert and a novice clinician. This presentation will describe how a generative knowledge e-Portfolio Program has helped PT students uncover their 'tacit' knowledge and discover what they know and how they learn, facilitating reflection, their ability to integrate content and lifelong learning. Research has shown that reflection cannot be taught through an implicit curriculum. An e-Portfolio Program spanning the DPT curriculum and consisting of generative knowledge interviews and reflection exercises has been implemented to explicitly promote students' ability to reflect-in-action. Six learning objectives were developed to guide the program development and outcomes were measured via student surveys. Results indicate that greater than 80% of students believe the program assisted them in developing personal and professional goals and improving clinical decision-making skills and 82% of students recommend the continued use of the program in the curriculum. Our results demonstrate that the explicit instruction in reflection can be effectively taught and threaded throughout the curriculum to advance clinical decision-making skills in physical therapy students.

## - Physician Assistant Studies -

### ***Prostate Cancer Prevention and Screening***

*Presenters: Derek Asimus, April Iezza, Spencer Mason, Laura Skeeles*

*Faculty Advisor: James Eckert, PAc, MA*

*Department: Physician Assistant Studies*

#### **Table #109**

Today prostate cancer is the second most prevalent cancer in males and causes the second most fatalities due to cancer. The prostate itself is a granular organ that produces seminal fluid used in ejaculation. When these glandular cells mutate into cancer cells it is called adenocarcinoma. These cancer cells can go on to form tumors locally, or the cancer can metastasize and spread to other regions of the body; most frequently to the bone and lymph nodes. Several genetic and lifestyle factors increase an individual's chances of acquiring prostate cancer including age and family history. The cancer may cause pain or interfere with urinary and sexual function. Often times the cancer cells will change the regular morphology of the prostate gland itself or secrete specific antigens into the bloodstream. The two main screening tests for prostate cancer include the digital rectal examination (DRE) and calculating the serum prostate specific antigen (PSA) levels. When used together these tests only have a positive predictive value (PPV) of 0.49. If results are abnormal a prostate biopsy, trans-rectal ultrasonography, or an magnetic resonance image (MRI) can be ordered to further diagnosis and stage the cancer. Specific treatment plans are developed based on the individual patient's general health and tumor stage, but some of the more common forms of treatment include radiation therapy, radical prostatectomy, or simple observation. An individual can reduce their chances of forming an advanced tumor by making certain lifestyle modification and regularly having screening tests performed.

### ***Alzheimer's Disease***

*Presenters: Amanda Hayden, Sandy Cheung, Alessandra Noto, Michael Varvara*

*Faculty Advisor: James Eckert, PAc, MA*

*Department: Physician Assistant Studies*

#### **Table #110**

Alzheimer's disease (AD) is a progressive, degenerative disorder that impacts the brain and affects language, reasoning, memory and social behavior. Older people have a high risk for AD, however, it is not a normal part of aging and is not exclusive to the over 65 population; people as early as 40 or 50 can get early-onset AD. Age and genetics are the most important risk factors, and evidence suggests that

diabetes, hypertension, high cholesterol and obesity may also be risks factors. AD presents with two main pathophysiologic findings in the brain; beta amyloid plaques and neurofibrillary tangles, with the former being the first to develop. These manifestations are what eventually lead to neuron cell death, synapse loss and brain atrophy. Due to the complexity of the disease stages and the unknown causation, management of AD is basically symptomatic and disease modifying therapies along with long-term care. Standard treatment of mild to moderated dementia in AD includes acetylcholine esterase inhibitors (AChE-I) and memantine. Individualized treatment plans are mandated in order to address concurrent psychiatric and medical conditions. Medications and therapeutic care must evolve with time in regards to the newly emerging symptoms. Current therapeutic drugs that are using worldwide can only slow down the progression of symptoms. There is no definitive preventive measure for AD though many suggestions such as diet and physical and mental exercise have arisen.

### ***Cervical Cancer Screening and Prevention***

*Presenters: Alexandra Holder, Michele Chrisostoumou, Brittany O'Gara, Nicholas Suydam*

*Faculty Advisor: James Eckert, PAc, MA*

*Department: Physician Assistant Studies*

#### ***Table #111***

This project examines the epidemiology, risk factors, modes of transmission, pathophysiology, prevention and treatment of cervical cancer. Cervical Cancer is the second most common cancer among women globally. HPV is the leading cause of cervical cancer of which there are thirteen types known to be high risk and develop into malignancy. HPV is most commonly spread by skin-to-skin contact through vaginal, anal, and oral intercourse. In the majority of patients who become infected with HPV, the virus takes its natural course and eventually goes away on its own within 1-2 years. However, in a small minority of HPV infected patients, the virus infects epithelial cells and begins to make proteins. 90% of cancers are found at the squamous columnar junction of the cervix. Pap smears, HPV DNA tests and vaccinations are the most frequently used methods of prevention for HPV and pre-cancerous findings. Treatment varies depending on the degree and extent of carcinoma –in-situ. Biopsies should always precede cauterization, cryosurgery, Carbon dioxide laser, Loop excision, conization of the cervix, or a total hysterectomy.

### ***Periodontal Disease***

*Presenters: Amanda Fleischut, Erin Ackert, Rishona Johnson, Tom Philip*

*Faculty Advisor: James Eckert, PAc, MA*

*Department: Physician Assistant Studies*

#### ***Table #112***

Periodontal disease is an inflammatory bacterial infection of the gum and surrounding tissues that support the teeth. This disease affects all ages worldwide; however, age, family history and environmental factors increase a person's susceptibility. Periodontal disease results from plaque-forming, Gram-negative anaerobic infections. The initial infection is classified as gingivitis that, if left untreated, will advance to destructive periodontitis. While the infectious bacteria can be transferred in saliva, particularly between parent and child, a person will only be actively infected if genetically predisposed and already at risk for infection. These risk factors include: tobacco use, diabetes, obesity, autoimmune diseases, and the use of certain medications. Currently diagnostic imaging, periodontal charting, full mouth plaque score, and full mouth bleeding score, in addition to an entire host of other diagnostic procedures are being utilized as confirmatory measures for this disease. Prevention of periodontal disease is primarily based on public education and community outreach programs. Educating the public about the advantageous effects of smoking cessation, routine dental visits, a well-balanced diet and proper oral health habits, such as using fluoridated toothpaste and dental floss, can significantly reduce the risk of periodontal disease in all age groups. Futuristic hi-tech diagnostic tools and specific biomarkers that detect early periodontal damage will soon be integrated into routine dental visits as a preventative effort to improve periodontal health.

### ***Childhood Household and Recreational Injury Prevention***

*Presenters: Jocelyn Gruskiewicz, Dennis Boateng, Aaron Morse, Michele Wagner, Zoe Zheng*

*Faculty Advisor: James Eckert, PAc, MA*

*Department: Physician Assistant Studies*

#### ***Table #113***

Each year, 28% of children under the age of 7 suffer some form of household or recreational injury. These

injuries vary greatly in terms of severity, ranging from minor scrapes and bruises to permanent brain injury or even death. Regardless of level of severity, the majority of injuries possess the common tie of being preventable. In addition, it has been found that risk of injury is dramatically elevated in children whom are male, live in rural areas, and come from a socioeconomically disadvantaged background. Although these demographic risk factors may not be able to be modified, certain behavioral and environmental adjustments can certainly be implemented in an effort to protect children. This project seeks to discuss four specific causations of childhood injury - electrocution, poisoning, drowning, and concussions. Each type of injury will be discussed in regards to current statistical evidence, causation, and prevention, with related adult injury data and long-term prognosis information being applied to concussion research. Effective strategies for injury prevention should be based on the epidemiology of the injury; therefore detailing the causation of injury is necessary to the understanding of effective prevention techniques. Specific prevention mechanisms for each type of injury will be described in an effort to better educate parents, guardians, and caretakers of simple steps that can be taken to prevent childhood injury both within the home and during recreational activities. It is hoped that by educating the public about the risks of injury and the easy preventive measures, childhood injury will decline.

### **Lead Poisoning Prevention for Children**

*Presenters: Matthew Rosenblum, Brian Anzelone, Laura Fox, Erica Jordan*

*Faculty Advisor: James Eckert, PAc, MA*

*Department: Physician Assistant Studies*

#### **Table #114**

Lead poisoning is a condition caused by the exposure to, and absorption of, excessive amounts of lead via ingestion and/or inhalation, which can damage multiple organ systems. Lead is a neurotoxicant and its mechanism of toxicity is largely unknown, however, it has been discovered that lead mimics calcium in that it occupies calcium binding sites and inhibits many of the body's physiological processes. Children under six years of age who are non-Hispanic black, or Mexican American are more likely to get lead poisoning. The biggest risk factors for lead poisoning are: living in housing built before 1978, living in communities with increased industrial pollution, and occupational exposure to lead or close contact with such a person. Initial symptoms of lead poisoning are chiefly non-specific, often leading to misdiagnosis, but chronically, lead poisoning can potentially cause encephalopathy, nephropathy, neuropathy, anemia and bone abnormalities. Current treatment for lead poisoning in children depends upon lead levels in the blood. Because lead will be naturally eliminated from the body, low levels ( $<45\mu\text{g/dL}$ ) may be screened and evaluated with minimal intervention, whereas levels  $\geq 45\mu\text{g/dL}$  warrant treatment with a chelating agent such as Calcium disodium-EDTA and/or British Anti-Lewisite (BAL). The mainstay of treatment remains reduction of exposure to the lead. Primary prevention for lead exposure focuses on environmental exposure assessments, counseling parents on recognizing potential sources, ensuring healthy diets, and screening all pregnant women and children at increased risk.

### **Fall Prevention in Older Adults**

*Presenters: Sarah Schoettler, Dale Arocha, David Fuzaylov, Scott Lyons*

*Faculty Advisor: James Eckert, PAc, MA*

*Department: Physician Assistant Studies*

#### **Table #115**

Although falls among the elderly population is a common geriatric syndrome, such events are often devastating: impairing an individual's quality of life, physical health and in severe cases, death. Each year, 1 in every 3 adults over the age of 65 falls; with 20-30% requiring medical attention due to laceration, fracture and or head trauma. Falls are multi-factorial in origin and their intrinsic and extrinsic risk factors can be classified as behavioral, environmental, or biologic in nature. Such risk factors include: alcohol use, adverse reactions to medications, unaccommodating public spaces, visual impairment and muscular atrophy. These elements impair one's ability to see, move, balance, or think properly. Co-morbidities such as osteoarthritis and Parkinson's disease can also increase the likelihood of a fall in the aging population. As a general rule, the more positive findings and co-morbidities associated, the higher the patient's risk. Medical assessment of an older adult's fall-risk can be challenging, and many risk-assessment questionnaires vary in reliability and validity. Medical risk assessment of these various factors is paramount to implementing preventative measures and mitigating the chance of future falls. The American Geriatric Society strongly encourages annual visual screening, tailored exercise programs, and

a proper consultation from a primary care provider on identified risk factors unique to that individual. Fall prevention and management involves an interdisciplinary approach by monitoring coexisting medical conditions, strengthening mobility, reviewing medications, and minimizing environmental dangers, as well as adding appropriate equipment for disabilities.

***Cholesterol Abnormalities in Adults***

*Presenters: Sean Yu, Jessica Egan, Gabrielle Gangemi, Vanessi Oliveira*

*Faculty Advisor: James Eckert, PAc, MA*

*Department: Physician Assistant Studies*

**Table #116**

Cholesterol abnormalities greatly increase the risk for developing heart disease, which is the most common cause of death in the United States. Even mildly abnormal cholesterol levels in young adults can predict future heart disease. Cholesterol is a fat-like substance important for the structure of cell membranes and hormones in the body, like estrogen and testosterone. While most of the body's cholesterol is naturally produced, the rest comes from our dietary intake. Genetics, certain medical conditions and several lifestyle decisions can increase a person's risk of developing potentially harmful changes in cholesterol levels. In addition, the diagnosis of cholesterol abnormalities is often missed due to the absence of observable clinical presentations, leading to delayed onset of treatment. However, a simple laboratory test can allow patients and providers to manage and control cholesterol blood levels before they reach concerning levels. The purpose of this project is to explore the impact cholesterol abnormalities have on long-term health, and to raise awareness on the importance of regular screening, preventive methods and treatment therapies.

## **- Physics -**

***A Search for Fast Radio Transients with LWA-1***

*Presenter: Bernadine Akukwe*

*Faculty Advisor: Michael Kavic, Ph.D.*

*Department: Physics*

**Table #6**

A low-frequency single dispersed pulse search was recently conducted with the first station of the Long Wavelength Array (LWA-1), a low-frequency radio telescope located near Socorro, NM, which is sensitive to a frequency range of 10-88 MHz. Possible candidate progenitors for such signals include: compact object mergers, supernovae, cosmic string cusp events, and exploding primordial black holes. I will summarize the observations conducted, the method used to reduce the data collected, and some relevant limits, which can be set as a result of this work.

***Searching for Fast Radio Bursts in Electromagnetic Wave Observations***

*Presenter: Amanda Larracuenta*

*Faculty Advisor: Michael Kavic, Ph.D.*

*Department: Physics*

**Table # 7**

Recently, a collection of fast radio transients of extra-galactic origin have been observed using the Parkes Survey radio telescope in Australia and Arecibo radio telescope in Puerto Rico. These transients known as fast radio bursts (FRBs), are extreme bursts of energy in the form of radio waves that may be emitted by exotic spacial phenomena such as primordial black holes. We set out to create some limits on future observations of FRBs using the Long Wavelength Array (LWA) radio telescope in New Mexico. The size of the LWA beam was set to 4.5 degrees as observations were conducted using two tunings for transient surface density of 42 MHz and 72 MHz. About 30 hours of observation time were made and though no FRBs were detected, we were able to set constraints at both frequencies using the flux density data collected.

## **- Psychology -**

***Dissociation and Avoidant Coping as Sequelae of Sexual and Interpersonal Violence in a Multicultural, Urban, Young Adult Population***

*Presenter: Elisheva Bellin*

*Faculty Advisor: Sara C. Haden, Ph.D.*

*Department: Clinical Psychology*

***Table #57***

Although previous research has shown the connection between exposure to violence, dissociation, and avoidant coping activities, the way in which avoidant coping mechanisms might impact dissociative symptoms in survivors of sexual and interpersonal trauma has not been well explored in a multicultural, urban, young adult population (Gipple et al., 2006). Studies in an adult, primarily Caucasian sample comparing the two groups of exposure to sexual violence and interpersonal violence, suggest that those who have been exposed to sexual violence exhibit more dissociative behaviors than those who have been solely exposed to other forms of interpersonal violence (Staples et al., 2012), and that engaging in avoidant coping activities helps victims of trauma avoid unpleasant emotions in the aftermath of the trauma (Kumpula et al., 2011). This current study explored how trauma exposure, either sexual or interpersonal, moderates the impact of avoidant coping on dissociation in a multicultural, young adult sample. Dissociation levels were found to be significantly higher in the sexual + interpersonal group versus the no trauma group. No significant difference between avoidant coping levels between the four groups was found, and trauma group did not prove to moderate avoidant coping's impact on dissociation.

***How Does Parental Rejection Impact Object Relations?***

*Presenters: Amanda Benedetto, MA, Lisa Weiser, Ph.D., Nicole Nehrig, MA, James Poole, MA*

*Faculty Advisor: Philip S. Wong, Ph.D.*

*Department: Clinical Psychology*

***Table #58***

This study examined the impact of parental rejection on object relations, with a focus on implicit self-esteem. We expected that the perception of parental rejection would be associated with more limited object relations. We also expected that subcategories of parental rejection—hostility, indifference, and “undifferentiated” rejection—would impact object relations differently. Finally, we expected an impact of cultural background on object relations. Perception of parental rejection was measured via Rohner's (2008) Parental Acceptance-Rejection Questionnaire. Implicit object relational capacities were based on (n=110) participants' earliest memories, as assessed via the Social Cognition and Object Relations Scale (Stein et al., 2011). Regression analyses showed that overall parental rejection does not have a significant impact on implicit self-esteem. However, undifferentiated rejection from father has a significant (negative) relationship with implicit self-esteem. Because a preliminary analysis revealed that age at immigration has a significant impact on self-esteem, this was used as a covariate in regression analyses. Supplementary analyses revealed that age at immigration has a significant (negative) relationship with implicit self-esteem, complexity of object representations, emotional investment in relationships, and understanding of social causality, indicating a cultural influence on object relations as well.

***The Price of 'Feeling It': Empathy and Interpersonal Functioning***

*Presenters: Ayelet Boussi, Ruifan Zeng, Scott Sasso, Nicole Cain, Ph.D., Chiara De Panfilis, Kevin Meehan*

*Faculty Advisor: Nicole Cain, Ph.D.*

*Department: Clinical Psychology*

***Table #59***

The construct of empathy can be conceptualized using two dimensions; the first is a capacity for intellectually perceiving another individual's perspective, or cognitive empathy, and the second is the emotional capacity for sharing the feeling state of another individual, or affective empathy (Baron-Cohen & Wheelwright, 2004; Davis, 1983). The role of empathy in personality disorders and interpersonal dysfunction has been studied extensively, however the relationship between the dimensions of empathy and specific types of interpersonal problems has not yet been explored. Using the Interpersonal Reactivity Index (IRI, Davis, 1983) and the Inventory of Interpersonal Problems (IIP-32, Hopwood et al., 2008), this study investigated the relationship between the different facets of empathy and specific types of interpersonal problems and interpersonal distress. Participants were 64 undergraduate students recruited at a multicultural, urban university. We found that empathic fantasy correlated positively with interpersonal



nonassertiveness. Empathic concern, correlated positively with overly warm interpersonal problems. Personal distress positively correlated with domineering, exploitable, and intrusive interpersonal problems. As predicted, personal distress was also positively correlated with level of interpersonal distress. Overall, affective empathy was found to be associated with more interpersonal problems than cognitive empathy.

***Solving the Tower of Hanoi Problem: The Effects of Practice, Verbalization, and Mode of Presentation***

*Presenter: Noah Cohen, Lucas Wong*

*Faculty Advisor: Gary Kose, Ph.D.*

*Department: Psychology*

***Table #77***

This study is concerned with the interaction of practice experience, verbalization, and the mode of presentation on finding solutions to the Tower of Hanoi problem. The present study employed a 2 x 2 x 2 between groups, factorial design. The independent variables are: mode of presentation (computer analogue vs. actual task), practice (no prior practice or practice with 2 & 3 disc problems), and verbalization (no verbalization or verbalization while solving the criterion problem). The dependent variable is performance on a four disc problem, measured by the number of moves and time needed for completion. Participants were randomly assigned to one of the eight conditions in the design. Analysis revealed significant main effects and several interesting interactions. These findings are discussed in terms of the distinctions between solving a problem through a computer analogue and the overt actions involved when solving the problem with actual physical objects.

***Actuarial and Clinical Factors Predicting Recidivism Among Child Pornography Offenders***

*Presenter: Mark Coury*

*Faculty Advisor: Sara C. Haden, Ph.D.*

*Department: Clinical Psychology*

***Table #60***

Understanding offenders' behaviors and preventing future crimes from being committed has been a focus of forensic research. While many studies have been conducted on child molesters, little research exists on child pornography (CP) offenders (Robilotta, Mercado, & DeGue, 2008). It is assumed that the same risk factors predict recidivism among CP offenders and child molesters. Assessments focus either on actuarial (static) or clinical (dynamic) risk factors to predict future risk of recidivism (Monahan, 2007). Using actuarial (criminal history, age at time of referral) and clinical (high percentage of cognitive distortions, deviant sexual interests, failed sexual history polygraph examinations, antisocial personality) risk factors, this study attempts to bridge the gap to predict recidivism or non-recidivism groups of CP offenders. No significant results were found, possible because the study was underpowered. Further research is needed to understand the predictors of recidivism in child pornography offenders.

***Interpersonal Style and Reflective Functioning***

*Presenter: Jessica Egan*

*Faculty Advisor: Kevin Meehan, Ph.D.*

*Department: Clinical Psychology*

***Table #61***

Reflective functioning (RF), or the capacity to make sense of one's own and others' behavior in terms of mental states (i.e., feelings, beliefs, intentions, and desires), is thought to play an important role in interpersonal functioning. RF may be an underlying mechanism of interpersonal style, which could have implications for psychotherapeutic treatment. The RF scale score descriptions also resemble different types of interpersonal problems, suggesting that the RF scale may actually assess interpersonal style. The present study is the first to focus specifically on the potential role of RF in interpersonal functioning or style. RF was not significantly associated with interpersonal style in this sample. However, a trend towards a significant negative correlation between RF and level of interpersonal distress was observed. Study limitations and directions for future research are discussed.

***The Impact of Ethnic Identification, Experiences of Discrimination and Feelings of Entitlement on Academic Achievement in Black College Students***

*Presenter: Kevin Foster  
Faculty Advisor: Benjamin Saunders, Ph.D.  
Department: Clinical Psychology*

**Table #62**

The racial academic achievement gap is a growing problem in the United States. Black Americans lag well behind other races in the attainment of secondary and post-secondary degrees. This study examined the relationship between several factors believed to be implicated in the lack of Black Americans' academic success. It was proposed that experiences of racial microaggressions would interact with a Black individual's degree of racial commitment and negatively impact a sense of entitlement. It was posited that a race-based entitlement ensued, which would negatively impact academic performance attitudes. It was hypothesized that African Americans with a stronger positive relationship between racial microaggressions and ethnic centrality would have a higher sense of race-based entitlement and lower scores on a measure of academic self-concept. Race-based entitlement did not correlate with experiences of discrimination ( $r = .09, p = .421$ ), ethnic identity-commitment ( $r = .09, p = .432$ ), or academic self-concept ( $r = .08, p = .457$ ). Although neither correlation reached significance, race-based entitlement did show correlations in opposite directions with experiences of discrimination, depending on the country of birth (American born  $r = .18, p = .200$ ; other country  $r = -.02, p = .942$ ). Implications for these findings and future directions are discussed.

***A Comparison of the Working Alliance Inventory in Cross-Racial and Matched-Race  
Psychotherapy Dyads***

*Presenter: David Friedman  
Faculty Advisor: Lisa Wallner Samstag, Ph.D.  
Department: Clinical Psychology*

**Table #63**

The current study assessed the reliability of patient self-report ratings of the working alliance, as measured by the Working Alliance Inventory – Short Form (WAI-S), in  $N=101$  cross-racial and  $N=37$  matched-race therapy dyads. An exploratory factor analysis was also conducted to determine whether or not the current factor structure of the WAI-S is a valid and reliable measure of alliance with minority patients in cross-racial therapy dyads. Estimates of internal consistency were high for both the cross-racial and matched-race therapy dyads. Test-retest reliability estimates were moderate for both the cross-racial and matched-race therapy dyads. Exploratory factor analysis of the WAI-S in cross-racial therapy dyads revealed a factor structure with three correlated, but separate factors, as opposed to a general alliance factor model or a bilevel model of alliance. Each new factor was a blend of two of the original factors of the alliance (Goals, Tasks, Bond). Possible unique components of alliance in cross-racial therapy dyads are discussed, as well as limitations of the current study and the potential for future research.

***The Impact of Traumatic Stress and Attachment Styles on Annihilation Anxiety***

*Presenters: Ronit Grofman, Marvin Hurvich, Ph.D.  
Faculty Advisor: Nicole Cain, Ph.D.  
Department: Clinical Psychology*

**Table #64**

The present study investigated the relationship between childhood exposure to traumatic stress, attachment style, and annihilation anxiety. Traumatic stress has been linked with depression and anxiety in adulthood. Attachment insecurity has also been identified as a predictor of such negative outcomes. The present study examined the role of traumatic stress and attachment insecurity styles as possible predictors of annihilation anxiety in a sample of 171 treatment-seeking participants. Traumatic stress was found to be significantly correlated with higher scores on the HEI/50, suggesting that those who are exposed to traumatic stress are at a greater risk of suffering from annihilation anxiety. Attachment styles were not found to be predictors of annihilation anxiety. In addition, higher scores on the HEI/50 were found to be significantly higher for those who reported significant loss in childhood than those who did not.

***The Skinny on Aggression: The Relationship Between the Expression of Anger and Bulimia  
Symptomatology***

*Presenter: Alexandra Grundleger  
Faculty Advisor: Sara C. Haden Ph.D.  
Department: Clinical Psychology*

**Table #65**

Individuals with eating disorders are known to struggle with managing and expressing their emotions, mainly the negative ones. Some studies have found that individuals with bulimia symptoms actually have intensified struggles with emotion regulation and are often extremely self destructive, impulsive, and externally focused. However, little research has been performed on the relationship between the expression of particular negative emotions, specifically anger, and bulimia symptomatology. This study analyzed the relationship between the amount of sub-clinical bulimia symptoms and three types of anger expression: impulsive, self-directed, and direct. One hundred and sixty participants completed self-report measures of bulimia symptoms and the expression of the three types of anger. All three forms of anger expression were positively correlated to levels of bulimia symptoms. These results emphasize the importance of addressing emotion regulation, and specifically the management of negative emotions like anger, when working with individuals with bulimia symptomatology. Furthermore, these results will assist clinicians in highlighting potentially useful targets for intervention and prevention within the eating disorder population.

***Creative Control: Exploring the Relationship Between Effortful Control and Creativity***

*Presenter: Elizabeth Gustafson  
Faculty Advisor: Nicole Cain, Ph.D.  
Department: Clinical Psychology*

**Table #66**

Effortful control (EC) is the aspect of temperament that allows for the ability to voluntarily replace a dominant response to stimuli with a response more in line with one's long term goals. EC has three domains: attention, activation, and inhibition. Creativity, or the ability to create new yet appropriate responses, can be conceptualized either via cognitive processes, creative thinking (CT), or behaviors, creative behavior (CB). The current study was the first to explore the relationships between EC and its domains with CT and CB. The results showed no relationship between CT and CB. In addition, there was no significant relationship between EC and its domains with either CT or CB. Study limitations and future directions are discussed.

***Relational Needs in Immigrants***

*Presenter: Scarlett Siu Man Ho  
Faculty Advisor: Philip S. Wong, PhD  
Department: Clinical Psychology*

**Table #67**

Immigration impacts relational experiences. Research found that hunger for, and avoidance of, self-object relational experience is associated with anxiety. What is the impact of immigration on selfobject needs and anxiety? Using the Selfobject Needs Inventory, the State Trait Anxiety Inventory for Adults, and written accounts of early memories, this study found a significant relationship between immigration status, selfobject needs, and anxiety. Immigrants also demonstrated an increased hunger for self-object needs compared to US born persons.

***MeHarmony: The Manifestation of Narcissism in Online Dating Culture***

*Presenters: Jordana Jacobs, Nicole Cain, Ph.D., Benjamin Saunders, Nicholas Papouchis  
Faculty Advisor: Nicole Cain, Ph. D.  
Department: Psychology*

**Table #68**

Although various researchers have studied the way in which narcissists typically use social networking sites (SNS), this study was the first to examine how individuals with narcissistic traits behave in the online dating sphere. In exchange for candy, students at Long Island University (N=150) filled out self-report questionnaires measuring pathological narcissism, experience of romantic love, and online dating behavior. While there was a positive correlation between Grandiose Narcissism and Passion, there were no significant correlations between pathological narcissism and online dating behavior. In future studies,

the construction of a validated Online Dating Questionnaire is necessary to further examine the ways in which narcissists behave on online dating websites.

***The Relationships among Annihilation Anxiety, Posttraumatic Stress Disorder and Dissociation***

*Presenters: Anna Jadanova, Marvin Hurvich, Ph.D.*

*Faculty Advisor: Elizabeth Kudadjie-Gyamfi, Ph.D.*

*Department: Clinical Psychology*

**Table #69**

The purpose of this study was to examine relationships among annihilation anxiety, posttraumatic stress and dissociation. Previous research found that dissociation during or after a traumatic experience accounts for one third of the variance in posttraumatic stress disorder (PTSD) symptomatology. Annihilation anxiety is described as a state of psychic helplessness in response to being overwhelmed. It is highly correlated with PTSD symptoms, suggesting that it could be one of the common responses to traumatic experiences. This study aims to clarify whether annihilation anxiety is correlated with dissociation as well as PTSD. Furthermore, it is hypothesized that dissociation may serve as a moderator in the relationship between annihilation anxiety and PTSD. In a diverse, outpatient sample (n=49), it was found that both dissociation and PTSD are significantly correlated with annihilation anxiety, even when controlling for the effects of age, gender and ethnicity. However, dissociation did not emerge as a moderator in the relationship between annihilation anxiety and PTSD. Implications for these findings and future directions are discussed.

***Borderline Traits and an Experimental Measure of Dichotomous Thinking: associations with social perception, self-esteem, and interpersonal problems***

*Presenter: Stephanie Jameson*

*Faculty Advisor: Nicholas Papouchis, Ph.D.*

*Department: Clinical Psychology*

**Table #70**

To examine dichotomous thinking in individuals high in borderline personality disorder (BPD) traits, participants high and low in BPD traits evaluated positive and negative attributes of self, other, and an inanimate object in a response time task. High BPD traits were associated with longer response times when evaluating positive and negative attributes of self and other when presented in an alternating versus non-alternating condition. High BPD was also associated with self-reports of dichotomous thinking about self and others and low self-esteem.

***Explicit and Implicit Appraisals of Emotion in Personality Styles: the Relationship between Anger and Obsessive-Compulsive Personality***

*Presenter: Brian Jo*

*Faculty Advisor: Nicole Cain, Ph.D.*

*Department: Clinical Psychology*

**Table #71**

This present study focused on the relationship among explicit and implicit anger, perceived threats from anger, and obsessive-compulsive personality (OCP). Anger has been theoretically linked to OCP through clinical observation in the psychoanalytic literature. Previous research has shown empirical support for the relationship between obsessive-compulsive disorder and explicit anger, but only a few empirical studies that have shown a connection between OCP and explicit anger. Furthermore, previous research studies have examined these relationships using inaccurate measures based on OCD symptoms and DSM criteria. From a sample of 54 young adults, 18 participants were placed in one high and low group of OCP created from the top and bottom thirds of the sample. Results indicated that group differences between high and low groups of OCP were not significant, yet indicated a trend, for perceived threats from anger and implicit experiences of anger, but were significant for explicit anger, perceived threats from general emotion, sadness, and anxiety, and the 4th trial of the Implicit Association Test (IAT). Perceived threats from anger were not significant with regard to predicting the implicit experiences of anger. Additionally, reaction times and errors were also not significant for group differences. Results suggest that individuals with OCP are more vulnerable to experiences of explicit anger in general and implicit anger when consistently exposed to frustrating stimuli.

***Impact of Object Relations and Impulsivity on Persistent Suicidal Behavior***

*Presenters: Katie C. Lewis, MA; Kevin B. Meehan, Ph.D.; Jane G. Tillman, Ph.D.; Nicole M. Cain, Ph.D.; Philip S. Wong, Ph.D.*

*Faculty Advisor: Philip S. Wong, Ph.D.*

*Department: Clinical Psychology*

***Table #72***

Our study focused on whether various facets of object relational functioning would relate differentially to the prevalence of past suicidal behavior in patients who reported varying levels of attentional, motor, and non-planning impulsivity. We expected there to be global differences in impulsivity levels and quality of object representations in suicidal versus non-suicidal groups, and additionally that impairments in object relational functioning would be associated with more frequent suicidal behavior in highly impulsive patients in comparison to those with lower trait levels of impulsivity. Our study found no global differences in either object relational functioning or self-reported levels of impulsivity between attempters and non-attempters. However, significant interactions emerged between the Aggression subscale of the SCORS and levels of "non-planning" impulsivity. Participants with higher levels of non-planning impulsivity were more likely to have a higher number of past suicide attempts if they also demonstrated a hostile or malevolent quality of internalized object representations; this effect was not seen in participants with low levels of non-planning impulsivity. No significant moderating effects were found for other measured forms of impulsivity, or for any of the other object relations variables.

***Impact of Type of Violence Exposure on Post-traumatic Stress Symptoms, Depression, Aggression, and Dissociation in Young Adults.***

*Presenter: Neeru Madan*

*Faculty Advisor: Sara C. Haden, Ph.D.*

*Department: Clinical Psychology*

***Table #73***

This study compared the impact of witnessing family versus community violence on the health of young adults. Participants completed surveys assessing violence exposure, Post traumatic stress (PTS), depression, aggression, and dissociation. Individuals witnessing violence in their homes reported greater PTS and self-absorption dissociative symptoms than those who witness community violence.

***Dissociation as a Predictor of Post-Traumatic Stress Symptoms.***

*Presenter: Neeru Madan*

*Faculty Advisor: Sara C. Haden, Ph.D.*

*Department: Clinical Psychology*

***Table #74***

Trauma severity and dissociation have been conceptualized as predictors of Post traumatic stress (PTS) symptoms, however no studies have investigated them together. The current study determined the mediating effect of dissociation on the relationship between trauma severity and post-traumatic stress symptoms. A total of 474 college students from a northeastern university in the U.S. completed measures assessing trauma severity, dissociation and PTS symptoms. The results indicated that all three variables were significantly related to each other. Furthermore, it was found that dissociation partially mediated the relationship between trauma severity and PTS symptoms and explained 17.4% of this relationship.

***Attachment as a Moderator Between Effortful Control and Externalizing and Internalizing Symptoms of Psychopathology***

*Presenters: James Poole, Kevin Meehan, Ph. D.*

*Faculty Advisor: Nicole Cain, Ph.D.*

*Department: Clinical Psychology*

***Table #75***

Research has shown that both attachment style and effortful control (EC) impact an individual's experience of psychopathology. The particular effects of attachment avoidance in the expression of psychopathology and of EC in the expression of internalizing symptoms of psychopathology are unclear. The current study collected data from 228 participants who had completed an online survey including the Revised Experiences in Close Relationships questionnaire (ECR-R), the Effortful Control Scale of the Adult Temperament Questionnaire (EC scale of the ATQ), and a number of scales from the Personality

Assessment Inventory (PAI) assessing both internalizing and externalizing symptoms. This study investigated the contribution of attachment anxiety, attachment avoidance, and EC in the experiencing of internalizing and externalizing symptoms of psychopathology. The current study found that EC had a negative relationship to both internalizing and externalizing symptoms of psychopathology and that attachment avoidance had little impact on individuals' experiences of psychopathology. Additionally, attachment anxiety and EC were found to have an interaction effect on individuals' reports of both internalizing and externalizing symptoms of psychopathology.

***Predictors of Psychotherapy Adherence Among Clinical Patients With Post-Traumatic Stress Disorder***

*Presenters: Michael Wright  
Faculty Advisor: Kevin Meehan, Ph.D.  
Department: Clinical Psychology*

**Table #76**

A diagnosis of post-traumatic stress disorder (PTSD) indicates significant impairments in cognitive, emotional, and interpersonal functioning. Psychotherapy may help in reducing the symptoms that characterize PTSD—avoidance of trauma reminders, hyperarousal, and re-experiencing—but there continues to be impediments to patients completing treatment goals. The present study explored the role of these PTSD symptoms, as well as risk of substance abuse, in predicting treatment adherence among outpatient survivors of interpersonal traumas. Overall, higher severity of overall PTSD symptoms and avoidance of trauma reminders related to shorter time spent in therapy. Greater avoidance and younger age also predicted fewer sessions completed before dropout. Patients' risk for substance abuse also related to a greater likelihood of dropping out. The implications of these findings and future directions of this research are discussed.

## **- Public Administration -**

***The Impact of Social Networks and Socioeconomic Hierarchy on Unequal Access to Healthcare Among Young Adults in the U.S.***

*Presenters: Kareem S. Marsh, Carl F. Cook, Harrinarine Doobay, Brian C. Smith  
Faculty Advisor: Helisse Levine, Ph.D.  
Department: Public Administration*

**Table #39**

Disparities in access to healthcare in the U.S. has been a topic of continued debate in our nation. The purpose of this study is to examine the relationship between our two independent variables social networks and socioeconomic hierarchy on unequal access to healthcare for young adults in the United States (U.S.) ages 18-24. Using the enactment of the Patient Protection and Affordable Care Act (ACA) as a conceptual framework, we explored the relationships of our given variables to test our hypotheses that social network and SES impact health care accessibility. The CDC, NHIS, and US Census Bureau provided secondary data to perform a multiple regression analysis. Results suggest that marital status was the only statistically significant predictor ( $\beta = .278, p < .05$ ). Further empirical research is recommended.

## **- Public Health -**

***The National Tuberculosis Curriculum Consortium (NTC) MPH Competencies***

*Presenter: Daryl Johnson, Thomas Johnson, Janice Patterson  
Faculty Advisor: Brian Gilchrist, MPH, Ph.D.  
Department: Public Health*

**Table #36**

The National Tuberculosis Curriculum Consortium (NTCC), a 7 million dollar National Institutes of Health-funded initiative (2003-2010), was a unique multi-disciplinary initiative bringing together faculty from over 25 medical, respiratory care, physician assistant and advanced practice nursing, pharmacy, and public

health schools to serve as a test-bed environment for designing, implementing, and evaluating cross-disciplinary curricular innovations to strengthen tuberculosis (TB) curricula. A student TB survey was developed and administered in 2005 assessing students for their basic knowledge of TB and how confident they felt about taking care of persons with latent tuberculosis infection (LTBI) or active TB disease. Results from the survey were used to help create educational materials for professionals and students. As for all of the allied health disciplines represented in the Consortium, core competencies were developed addressing relevant knowledge, skills and attitudes in the diagnosis, management and treatment of TB for graduate students in Public Health. Each competency has its own set of suggested learning objectives with several core competencies specifically designed for students who wish to have an emphasis in Epidemiology. The competencies are freely available for download, after registering, at <http://ntcc.ucsd.edu>.

***Attitudes and Intentions Regarding Underground Reconstruction Surgery among Transgender People***

*Presenter: Vanessa Mejia  
Faculty Advisor: Brian Gilchrist, MPH, Ph.D.  
Department: Public Health*

**Table #37**

Underground Reconstruction/Cosmetic surgeries and Hormone Therapy are alternatives to legal genital reconstruction surgery. Due to exclusions in health insurance policies related to Transgender healthcare, Transgender people tend to seek services that are not covered by their health insurance policies via another route to attain the desired physical outcome. Individuals within the medical professions, as well as those who are not, perform these procedures using toxic substances causing adverse health effects such as hematomas, infections and even necrosis leaving patients in critical conditions. The purpose of this study is to examine the attitude and intentions of the Transgender population towards receiving underground reconstruction surgery. The Theory of Reasoned Action was used to develop a survey to investigate the attitudes and intentions of the target population regarding Underground Reconstructive /Cosmetic Surgery and/ or Hormone Replacement Therapy. An electronic survey was administered via Survey Monkey (n=60). Frequency distributions were conducted to assess the factors related to attitude and intentions of participants.

***“Show How Good You Really Are: Take the Stairs”: A Proposed Social Marketing Campaign to Improve Physical Activity Among LIU Students***

*Presenter: Linda Nozart, Hiral Patel, Shannon Givens  
Faculty Advisor: Kenneth Lo, MUP  
Department: Public Health*

**Table #38**

More than one-third of U.S. adults are obese, contributing a significant health and financial burden nationwide. Overweight and obesity result from a caloric imbalance. Most adults do not engage in recommended levels of physical activity. College is a key transitional period towards establishing healthy behaviors in adulthood. It is often the first time individuals are responsible for time management and including exercise in their schedules. Most students, however, exhibit a significant decrease in the number of minutes walked per week between freshmen and all other classes. Students become more sedentary and as their physical activity levels decrease, Body Mass Index and weight increase. “Show How Good You Really Are: Take the Stairs” is a proposed LIU-based social marketing campaign that leverages the LIU marketing slogan to encourage students to add a modest amount of physical activity to the student’s day, which according to the CDC can reduce the risk of developing heart disease, diabetes, and high blood pressure. Through a combination of environmental changes and social messaging, this campaign seeks to promote the increase of individuals taking the stairs rather than relying on elevators.

## **- Respiratory Care -**

***Negative Pressure Ventilation***

*Junior Presenters: Dana Alkhatib, Maurice Alleyne, Yasmine Alnowfi, Christine Ambooken, Sumbell Baig  
Senior Authors: V Collado, M Rushtlion, I Hossain, M Migirov, E Aitken*

*Faculty Advisor: Thomas Johnson, M.S., R.R.T.*

*Department: Respiratory Care*

**Table #87**

The topic of this poster project is negative pressure ventilation (NPV). This project aims to discuss and understand how negative pressure ventilation works; what benefits it can have on patient care and what disease processes benefit from this form of ventilation. Our method for this project would be to illustrate the comparison between negative pressure ventilation and positive pressure ventilation (PPV), discuss the history of NPV, and the various types of negative pressure ventilators. Additionally, to explain the various disease processes that require the use of NPV, its indications, contraindications, and its reimbursement policy.

Negative pressure ventilation achieves better oxygenation and a decrease in lung injury. Negative pressure ventilation is preferable in certain conditions, such as congenital central hypoventilation syndrome, which is failure of the medullary respiratory centers at the base of the brain. This may result in patients losing autonomic control of breathing. Negative pressure ventilation has also been found to reverse hypercarbia in patients with neuromuscular disorders. Negative pressure ventilators imitate normal negative pressure breathing in certain conditions. Negative pressure is distributed across a broad surface of the chest and abdomen and results in a more homogenous distension, therefore, improves oxygenation and can be less injurious than PPV.

**Home Ventilators**

*Junior Presenters: Marie Barnave, Betsy Casco, Alexandra Casseus, Sui Tung Chu, Aisha Dennis*

*Senior Authors: Sara Shalamova, Sabrina Bhoopsing, Joyal Mathew, Andrew Muthuveren, Janny Mei*

*Faculty Advisor: Thomas Johnson, M.S., R.R.T.*

*Department: Respiratory care*

**Table #88**

Many case studies have shown evidence that caring for ventilator-dependent family members to be physically and psychologically challenging. In addition, educational information about home care ventilators, similarities and differences will be provided. It is often time consuming and stressful due to monetary issues, medical emergencies and lack of training. It is suggested to have a properly instructed family member with the patient at all times. If not properly trained with equipment or emergency protocols, it could be very difficult to care for a ventilator-dependent person at home. In contrast, hospitals have medically trained staff available to provide the necessary help. Adapting to a home ventilator and all its responsibilities are not cut out for everyone. The goal of the presentation is to provide information regarding the use of home ventilators.

**Tracheostomy Tubes and Speaking Valves**

*Junior Presenters: Daniel Hardy, Seemien Hashmi, Alexandra Joseph, Adelenny Mercedes, Lena Mikhli*

*Faculty Advisor: Thomas Johnson, M.S., R.R.T.*

**Table #89**

The goal of our poster was to compare and contrast tracheostomy tubes/speaking valves. We hope to standardize all the tubes and make it easier for people to understand. Our method for our research was to gather as much information on tracheostomy tubes/ speaking valves and compare and contrast them on which is more beneficial to a particular patient. There are different types of tubes available. A fenestrated tube is recommended if a patient is able to speak and eat. Disposable inner cannulas are for patients who wants to do less maintenance. In order for the patient to use Passy Muir speaking valve, it would have to be a cuffless tube containing a disposable inner cannula. However, a patient with a cuff tube would have to deflate the cuff in order to use a speaking valve. As for the patients that has a problem with using the speaking valve, the best tube for them would be the cuffless fenestrated tube.

Some issues to consider is to make sure patients and caretakers are taught the proper way to maintain their tracheostomy tube/valves. This would minimize the complications associated with tracheostomy. Early training and support is essential in providing better patient outcome.

**Home Oxygen**

*Junior Presenters: Aisha Odesesan, Priya Patel, Christina Rocks, Samantha Singh*



*Senior Authors: Kazi Kalam, Ketura Rigby, Shara Ahmed, Yangchen Doleck  
Faculty Advisor: Thomas Johnson, M.S., R.R.T.  
Department: Respiratory Care*

**Table #90**

Oxygen has been shown to improve survival among patients with severe hypoxemia and improve quality of life. Home oxygen devices include the oxygen concentrator (POC), compressed oxygen gas, and liquid oxygen (LO). We compared all home care oxygen modalities to determine which is most effective in improving oxygenation in chronic lung disease patients. Based on the American thoracic society (ATS), Long term oxygen therapy (LTOT) is indicated in patients whose arterial oxygen concentration (PaO<sub>2</sub>) is less than or equal to 55 mmHg or oxygen saturation (SpO<sub>2</sub>) is less than 88%. We used two research articles that compared the use of LO and POC long term therapy options for COPD patients. The sample groups were evaluated based on an exercise tolerance test; a 6 minute and a 3 minute walk test respectively. The effectiveness of the two modalities were based on SpO<sub>2</sub>, PaO<sub>2</sub>, spirometry and assessment of dyspnea. The mean SpO<sub>2</sub> was 92.9±2.8% with POC and 91.7±2.0% using LO, while on air SpO<sub>2</sub> was 87.8±2.7%. The results showed that the effectiveness of LO or POC on oxygenation is not significantly different. The choice of long term home care oxygen therapy is based on one's lifestyle, financial ability and compliance to the equipment rather than the effectiveness of the equipment.

***Diaphragmatic Assist (Pacers and Insufflation Devices)***

*Junior Presenters: Charles Smith, Maggi Youssef, Xiang Hong Zheng*

*Senior Authors: P Patel, K Meza, R Benjamin, M Barnave*

*Faculty Advisor: Thomas Johnson, M.S., R.R.T.*

*Department: Respiratory Care*

**Table #91**

In 1968, Dr. William Gleen pioneered the diaphragmatic pacer to treat congenital central hypoventilation syndrome. Since 2012, diaphragmatic pacing has been used for congenital central hypoventilation syndrome, high spinal cord injury, and other central nervous system lesions involving the respiratory center. Diaphragmatic pacing is an alternative method of prolonged mechanical ventilation in patients with chronic diaphragmatic impairment. Patients suffering from congenital diaphragmatic impairments or those who have suffered trauma or paralysis to the diaphragm often become ventilator dependent and suffer a dramatic decrease in their quality of life. Diaphragmatic pacing offers patients a better quality of life which includes more mobility and less dependence on others because patient may be able to ambulate, go to work, travel, and perform most daily living activities. Patients are no longer isolated in a room attached to a mechanical ventilator with an uncomfortable tube down the upper airways. The patient's ability to speak is also preserved because there is no endotracheal tube necessary. When considering the appropriate patient population, diaphragmatic pacing can be a safe and beneficial alternative to prolonged mechanical ventilation.

## **- Smart Scholars Program-**

***Octavia Butler's Fledgling-- A Scholarly Inquiry***

*Presenters: Asiyah Ali, Jaire Brown, Alex Cypal, Isaiah Forde, Ian Henry, Knikai Hylton, Christian Jackson, Langston Rowling, Rashell Stewart*

*Faculty Advisor: Andrea Toussaint*

*Smart Scholars Program*

**Table #92**

In Octavia Butler's Fledgling, we see how a young vampire Shori, is burdened with amnesia which results in the loss of her identity. Butler shows the reader how human development plays a vital role in life. Shori, develops symbiotic relationships, which in turn, leads to her true identity. Our group's research topic was human development and our focus point was on the development of relationships. While conducting research, one puzzling question came to mind, "What role do human relationships plays in the development of identify?" To answer this, we will survey different demographic groups to identify which relationships most powerfully inform our identity.

***Applying Outlier Theories to School Policies & Practice***

*Presenters: Quason Barrett, Brandon Harding, Olivier Gaussaint, Dale St. Marthe, Rodson Zanders*  
*Faculty Advisor: Andrea Toussaint*  
*Smart Scholars Program*

**Table #93**

Bestselling author Malcolm Gladwell outlines several ideas about how and why certain individuals enjoy success in their lives and careers. Among his most interesting ideas are: The 10,000 Hour Rule, The Matthew Effect and Lessons from Joe Flom. Each of Gladwell's theories offer ideas and possible lessons for anyone that wishes to realize personal achievements in their lives. We were interested in finding out if Gladwell's ideas could possibly be used to help more than just individuals but also institutions such as public schools. We chose to look at our school report card and look at the areas where there were both successes and failures. Our next step was to recommend possible policy changes that might help the school become more successful. We conducted surveys and a series of interviews with school administrators at Boys and Girls High School to help us create our policy recommendations.

***The Immortal Henrietta Lacks- A Scholarly Inquiry***

*Presenters: Annah Brown, Brandon Clarke, Amir Horton, Amanda Thompson*  
*Faculty Advisor: Andrea Toussaint*  
*Smart Scholars Program*

**Table #94**

Human Papillomavirus (HPV) is the most common sexually transmitted infection. It is so common that nearly all sexually active men and women get it at some point in their lives. There are many different types of HPV that can cause health problems including genital warts and cancers. More than fifty years ago, a young woman named Henrietta Lacks was diagnosed with cervical cancer. Her legacy is that her cells are helping unravel the pathogenesis of cervical cancer so that we may be able to prevent and treat it. This research seeks to explore how scientists are using the HeLa cell line to study HPV which causes the cervical cancer that killed Lacks.

***The Trouble with Geniuses***

*Presenters: Inari Coleman, Destiny Gee, Priscilla George, Marlon Glynn*  
*Faculty Advisor: Andrea Toussaint*  
*Smart Scholars Program*

**Table #95**

Outliers: The Story of Success is based on Malcolm Gladwell's theories about what contributes to our experiences with success. Although many people believe that success is achieved primarily by their own individual efforts, Gladwell explains that success depends heavily on other external factors as well. One of Gladwell's major points in the text is that performance on intelligence quotient (IQ) exams are not always the best predictor of success. We became interested in looking at the possible relationship between personal perceptions of intelligence and the impact that IQ results may have on this perception. The question we wish to pursue in our research: "Does performance on intelligence tests change a one's personal perception of their intelligence or ability?" Using a survey and sample IQ test questions we measured respondents personal perceptions both before and after taking an IQ test to observe any changes. We also asked respondents to explain what factors they believe most contribute to their own experiences with success.

## **- Social Work -**

***The Impact of Social Media on LIU Brooklyn Students***

*Presenters: Zuly Lopez, Elyssa Rodriguez, Kelly Robinson*  
*Faculty Advisor: Susanna Jones, M.S.W., Ph.D.*  
*Department: Social Work*

**Table #82**

This exploratory study examined the use of social media among undergraduate students at Long Island University, Brooklyn. Social media produces both negative and positive impacts on students. Of the 100 undergraduate students who participated in the survey, students report using one or more types of social media. Findings also determined that a large percentage of the students at Long Island University,

Brooklyn believe that social networks are a useful communication tool and Long Island University should be more accepting of technology. The study also showed that students will benefit from professors integrating social network technology in the classroom setting and social networking sites do not affect student's performance in school. Based on the research with social networking it shows social networks could have a more positive than negative impact on the lives of students at Long Island University, Brooklyn. The research shows that social networking technology could have a positive impact by enforcing it in the classroom.

***The Exploration of Alcohol Use Among Undergraduate Students at LIU***

*Presenters: Sheila Rodriguez, Julia Jones, Joi Johnson, Carmen Farjardo*

*Faculty Advisor: Susanna Jones, M.S.W., Ph.D.*

*Department: Social Work*

***Table #83***

This exploratory quantitative study examines alcohol use among undergraduate college students within Long Island University (LIU), numerous studies have shown that undergraduate students consume alcohol to feel good, relate to others, when depressed, when stressed and to get drunk (O'Hare, 2002). The sample size of our study was one hundred L.I.U students. Each group member had twenty five surveys to distribute throughout L.I.U. campus. The research participants were males (44%), females (54%) and other (2%). Age range was 17-45 years old. Results show the majority of undergraduate student population consumes alcoholic beverages (93% has consumed an alcoholic beverage while 7% did not). This data supports previous research which shows 80% of undergraduate college students reported they drink (Wecshler & Workmen, 2001). According to Perkins (2008) he relates stress motivated drinking to undergraduate students. Implications discussed in paper.

***Marijuana and its Effects on College Students***

*Presenters: Ayanna Souza, Stacey Absolu, Jenifer Thompson*

*Faculty Advisor: Susanna Jones, M.S.W., Ph.D.*

*Department: Social Work*

***Table #84***

When it comes to college students many of them engage in experimental behavior like smoking marijuana. Many people inquire on whether or not marijuana decreases the grade point average of college students; or whether it plays a part in their academic ability at all. A survey was conducted and given to the students that attend Long Island University to obtain results on whether the students are smoking and where they stand academically. Results showed that the grade point average of those that smoke and do not smoke was very similar. This could mean that marijuana has little or no effect on the academic ability of the college students in Long Island University.

## **- Sociology -**

***Gender Roles in First Dates***

*Presenters: Andrew Amechand*

*Faculty Advisor: Gladys Schyrnemakers, Ed.D.*

*Department: Sociology*

***Table #30***

Gender roles are everywhere in society. One place where these gender roles are prominent is dating. Males have long been the initiators of the first date and the ones who are expected to pay for the date. The researcher was interested in finding out if these gender roles in first dates are beginning to fade with the more modern world. The researchers conducted a survey among college females and found that gender roles in first dates are beginning to fade. Women have become more independent and do not expect men to ask them out or pay for them on a date.

***Cuba Makes a Comeback!***

*Presenters: Malaka Banks*

*Faculty Advisor: Gladys Schyrnemakers, Ed.D.*

*Department: Sociology*

### **Table #31**

The country of Cuba has been through its shares of ups and down, especially when it came to their economic development. But this is Cuba's time to make a comeback once and for all. During the time of the former Soviet Union's collapse and the United States embargoes, Cuba economy took a turn for the worst causing Cuba to hit their breaking point. Thanks to the Cuban government and the people of Cuba working together, they were able to create new economic avenues to help boost their economy. Not only did Cuba help themselves, but they also received help from many countries. As of today the United States still has embargoes against Cuban, but President Barack Obama is undergoing negotiations to create a better and stronger relationship with Cuba.

#### ***Human Trafficking in Thailand***

*Presenter: Guoliang Alex Chiang*

*Faculty Advisor: Gladys Schyrnemakers, Ed.D.*

*Department: Sociology*

### **Table #32**

This study was primarily focused on the rampant human trafficking activity in Thailand, where mostly women and children are exploited in the forced labor and or sex industry. If left unchecked, the negative consequences this problem can result in sanctions by the UN. As of now, there are global organizations fighting human trafficking and the Thai government is taking action by implementing new policies and conducting more investigations. The proposed short term solution is for the Thai government to intervene and regulate the working environments in factories and brothels to stop exploitation. The proposed long term solution is to set up a social welfare system that supports the poor financially so they will not be exploited by human traffickers.

#### ***Human Sex Trafficking in Sri Lanka***

*Presenters: Sabrina Condello and Lisa Knight*

*Faculty Advisor: Gladys Schyrnemakers, Ed. D.*

*Department: Sociology*

### **Table #33**

Sri Lanka has high crime rates with kidnapping & sex trafficking. Sex trafficking there involves both men and women but mostly children. The Sri Lankan government puts up a good protective front. Their vision seems to have the outsiders fooled and putting up a Oly front. Awareness of sex trafficking and forced prostitution with humans have been spreading throughout the world.

#### ***The Evolution of the Metrosexual Man***

*Presenter: Nelly Suleymani*

*Faculty Advisor: Gladys Schyrnemakers, Ed. D*

*Department: Sociology*

### **Table #34**

In 1994, journalist Mark Simpson coined the phrase "metrosexual" in order to describe a new type of man. Described as "single, with a high disposable income, living or working in the city," these men aren't just found in fashion magazines anymore. Within the twenty years, we have come to accept men like David Beckham as "metrosexual" because gender roles and psychology are changing as well. The beauty and fashion industry in no longer considered one for female, or homosexuals nor do the habits of the metrosexual man make him less masculine. The methodology used is the analysis of several articles, and the statistics and sales of beauty and fashion products. Along with the examination of marketing research and reports, there are studies focused on the idea of the metrosexual man growing in both entertainment and sports. The metrosexual man has led to changes in today's culture, and has become accepted faster than expected, since it is going against the traditional masculine norm. Simpson writes that "Gay men provided the early prototype for metrosexuality," and this will be examined and compared using various polls that have been conducted as well as citing articles. Referencing popular media, and books in order to differentiate between the metrosexual and homosexual man will be presented, as will an optional exit survey after the presentation. Metrosexual men will also be compared to females, and how the rise of the metrosexual man has affected females and their traditional role as well. Comparing and contrasting, and showing the difference between a metrosexual man and a dandy (known from as early as the late 18th century) will be represented as well to show the history from even before the term metrosexual was

coined.

### ***Gender Differences Pertaining to Gun Control***

*Presenters: Sophia Williams, Simone Epps and Andre LeBlanc*

*Faculty Advisor: Gladys Schymemakers, Ed.D.*

*Department: Sociology*

#### **Table #35**

Gun control laws are a controversial topic in this country. The researchers were interested in investigating the differing opinions between men and women regarding gun control laws. 18 men and 21 women between the ages of 18-24 were asked 9 questions regarding gun control, how it relates to society, and their personal preferences. When it comes to gun control, there are differing opinions between genders.

## **- Technology, Innovation and Computer Science -**

### ***IT Applications - Expert Systems for Healthcare***

*Faculty Presenters: Ping-Tsai Chung, Ph.D., Samir Iabbassen, LLiver Jose, Kang Zhao, Mohamed Benrabaa*

*Faculty Advisor: Ping-Tsai Chung, Ph.D.*

*Department: Technology, Innovation, and Computer Science*

#### **Table #3**

We present Knowledge-based Expert Systems for Healthcare. These Self-Diagnosis Information Systems are for taking care human's healthcare. They diagnose and provide healthcare advices in different areas of healthcare. Also, they provide helpful healthcare information to enhance and update patient's knowledge. These Decision Making Systems are knowledgeable. They not only perform intelligent and deep diagnoses but also produce inferential advices for the interrelated diseases or areas. Our goal is to provide an efficient and effective way to take care patient's health to promote human's quality of life and to provide disease monitoring and control to alleviate or to reduce the Medicare investments. We will demonstrate the following four Expert Systems implemented by modern Information Technologies: (1) Web-Based Expert System for Diagnosis and Advisory of Chronic Diseases - presented by Samir Iabbassen. (2) Medical Self-Diagnosis Symptom Expert System of Fever Disease – presented by LLiver Jose. (3) Influenza Risk Evaluation and Diagnosis System – presented by Kang Zhao. (4) Troubleshooting Expert System - presented by Mohamed Benrabaa. The first one is based on Web-Server design, and the other three Expert Systems are implemented by both the Window-based CLIPS: A Powerful Tool for Building Expert Systems and the VisiRule: A Graphical Tool for Designing Decision Making Systems.

### ***LIU-Brooklyn Cybernetics Study Association***

*Faculty Presenters: Ping-Tsai Chung, Ph.D., Chrysanthos Mavropoulos, Mohamed Benrabaa, Zhao Kang, Felipe Ruiz, Mazen Musa*

*Faculty Advisor: Ping-Tsai Chung, Ph.D.*

*Department: Technology, Innovation, and Computer Science*

#### **Table #4**

Rapid advancements in Internets, embedded systems, sensors and wireless communication technologies have led to the development of cyber-physical systems, pervasive computing and smart environments with important applications around us. Cyberspace touches nearly every part of our daily lives, and the World Wide Web that has made us more interconnected than at any time in human history. We must understand and apply the Concepts, Principles, Methodologies and Applications of Cybernetics to promote human's quality of life. Also, we should secure our cyberspace to ensure that we can continue to learn, to grow and to protect our way of life. This club is to help students increase awareness of their potential in Concepts, Principles, Methodologies and Applications of Cybernetics. The purpose of the LIU-Brooklyn Cybernetics Study Association is to provide a multidiscipline interface between the diverse members, from fields such as Information Technology, Natural Sciences, Managerial Sciences,

Education, Health Professionals, Nursing, and Pharmacy, to review, exchange knowledge relevant to current issues, developments and applications in the Cybernetics field. Our goal is twofold: To encourage study and research on Cybernetics subjects; To promote communications among students who are interested in subjects of Cybernetics. In Discovery Day 2014 event, we will present our CSA recent activities.

***Visualizing Big Data***

*Presenters: Leandro Quezada*

*Faculty Advisor: Gladys Schrynemakers, Ed.D.*

*Department: Technology, Innovation, and Computer Science*

**Table #5**

As people's daily lives become more intertwined with that of digital world, a gold mine of information is steadily being created. This information containing personal interests, locations, hobbies, and thoughts can be aggregated in order to create a data set currently known as "big data". Big and small businesses alike are now trying to find ways to analyze this data in order to provide better services and/or product. This study focused on ways to collect and represent big data efficiently. Data was collected from millions of twitter profiles from over 15000 cities which mentioned fast food or beer. The data gathered were then filtered and organized through the use of several PHP scripts. The Google Maps API was chosen as a means to then represent the aggregated data.

# Discovery Day

March 26, 2014

## Bibliography of Brooklyn Campus Faculty, Staff, and Student Publications

Authors' names in bold indicate affiliation with LIU at the time of publication

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## - Clinical Psychology Ph.D. Dissertations -

<b>Student</b>	<b>Title</b>	<b>Committee Members</b>
2013		
Ali, Akeela	<i>Self-worth, Competency Domains, and Body Esteem in Overweight and Normal Weight Culturally-Diverse Young Adolescents</i>	Gary Kose, Ph.D. Joan Duncan, PhD. Marvin Hurvich, Ph.D.
Anyeji, Adeobi	<i>The Impostor Phenomenon and Stereotype Threat: Examining Clinical and Achievement Variables Among Black American Women</i>	Ben Saunders, Ph.D. Nicholas Papouchis, Ph.D. Elizabeth Kudadjie, Ph.D.
Castillo, S. Desiree	<i>Perceived Discrimination Stress and College Adjustment: Does Differentiation of Self Play a Role in This Relationship for an Urban Population of Minority College Students?</i>	Gary Kose, Ph.D. Elizabeth Kudadjie, PhD. Marvin Hurvich, Ph.D.
Celen Ceylan	<i>Therapist Characteristics as Predictors of the Working Alliance: Therapist Trait Empathy and Therapist Complex Thinking</i>	Lisa Wallner Samstag, Ph.D. Elizabeth Kudadjie, Ph.D. Nicholas Papouchis, Ph.D. Sara C. Haden, Ph.D.
Electris, C. Alexander	<i>Vicarious Trauma: A Relationship between Emotional Empathy and Emotional Overidentification in Mid-Career Trauma Clinicians</i>	Lisa Wallner Samstag, Ph.D. Kevin B. Meehan, Ph.D. Linda S. Penn, Ph.D.
Goggin, A. Michelle	<i>Multidisciplinary, Dissociation and Self-Complexity</i>	Nicholas Papouchis, Ph.D. Kevin B. Meehan, Ph.D. Benjamin Saunders, Ph.D.
Messinger, Julie	<i>Cognitive-Affective Processes in Schizophrenia: The Attentional-Blink and Olfactory Hedonics</i>	Paul Ramirez, Ph.D. Phil Wong, Ph.D. Lewis A, Opler, M.D., Ph.D., D. Malaspoina, M.D., MSPH
Zyuban, Anastasia	<i>Self-differentiation, nation of origin, religious affiliation, and bicultural identity development in former Soviet Union and Arab Immigrants</i>	Lisa Samstag, Ph.D. Nicholas Papouchis, Ph.D. Benjamin Saunders, Ph.D.

## - Pharmacy Ph.D. Dissertations -

<b>Student</b>	<b>Title</b>	<b>Committee Members</b>
2013		
Okoye, Patrick	<i>To Systematically Characterize Magnesium Stearate Polymorphs and Practically Evaluate Their Effect on Physicochemical Properties of Naproxen (BCS Class II) and Acetaminophen (BCS Class III) as Model Drugs</i>	Rutesh Dave, Ph.D. Grazia Stagni, Ph.D. Robert Bellantone, Ph.D. Anthony Cutie, Ph.D.