



**Hunter College  
Hunter-Bellevue School of Nursing  
School of Health Professions**

**12th Annual Spring Forum &  
Evidence-Based Practice Poster Day  
Wednesday, April 25, 2018**

**Abstract Book**

**Hunter College  
Schools of the Health Professions  
Hunter-Bellevue School of Nursing**

**Spring Forum &  
12<sup>th</sup> Annual Evidence-Based Practice Poster Day**

**Location: Rotunda  
Brookdale Campus  
Hunter College  
April 25, 2018**

**4:30- 5:00 – Poster Gallery**

**5:00 -5:15 – Light refreshments**

**5:15 -6:00 – Spring Forum Presentation:** Practice-Based Evidence  
*Optimizing Patient Care*

Marilyn J Hammer, PhD, DC, RN, FAAN

Director, Research & Evidence Based Practice

Department of Nursing, Mount Sinai Hospital

Associate Professor, Medicine, Hematology and Medical  
Oncology, Icahn School of Medicine at Mount Sinai

**6:00- 6:30 – Prizes and certificates awarded**



## Marilyn J. Hammer Biographical Profile

Marilyn Hammer is the director of research and evidence based practice at Mount Sinai in New York City. Prior to this new role, Dr. Hammer was a faculty member at the New York University Rory Meyers College of Nursing, which she began following her graduate work at the University of Washington in Seattle. She is also an associate editor for the Oncology Nursing Forum journal. Dr. Hammer's program of research focuses on associations between blood glucose and immune function in patients with cancer, including how these mechanisms impact risks for infection, mortality, and symptom experiences. This research has been predominately supported by NIH and the Eastern Nursing Research Society.

THE TWELTH ANNUAL EVIDENCE-BASED PRACTICE POSTER  
DAY HUNTER-BELLEVUE SCHOOL OF NURSING AND HUNTER COLLEGE  
SCHOOLS OF THE HEALTH PROFESSIONS

Liz Capezuti, PhD, RN, FAAN: William Randolph Hearst Foundation  
Chair in Gerontology, Professor, Assistant Dean for Research, Director,  
Center for Nursing Research, Hunter-Bellevue School of Nursing

Director, Hunter College Health Professions Education Center (HPEC)  
Martin Dornbaum, MS

Grants/Contract Manager:

Malini Lall: Bellevue School of Nursing, Hunter College, CUNY

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Elizabeth Olatunji: Bellevue School of Nursing, Hunter College, CUNY

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**Poster Number 1:***Outpatient Telephone Triage Documentation*

Authors:

Catherine Bautista

Debra O'Shea

Faculty Sponsor: Christine Cutugno, PhD, RN, NEA-BC

**Significance and Background:**

Telephone triage is essential in outpatient nursing practice for education, symptom assessment and patient support. Standardized electronic documentation is critical for continuity of care and to protect nurses in legal situations that may occur. The emphasis on documentation principles is decreased in baccalaureate programs, ill preparing new nurses.

**Purpose:**

This presentation will discuss an education intervention to standardize telephone triage documentation in order to improve patient safety and continuity of care.

**Interventions:**

An extensive literature search on nursing documentation highlighted a lack of research. The existing evidence supported routine evaluation of documentation to improve its quality. The literature identified 6 core principles of nursing documentation; documentation should be auditable, verifiable, accurate, concise, confidential, and education should be provided in concordance with your institution's policies. A baseline assessment of 39 nursing telephone notes was performed in an outpatient hematology service. Themes identified included - redundancies, improper abbreviations, unclear reason for note, and inconsistent use of the SBAR principles.

A 1 hour education program was offered on documentation core principles. 60% of nurses participated.

**Evaluation:**

Re-auditing of nursing documentation occurred 1 month after the education program. Preliminary results show a 100% increase in documentation demonstrating the core principles. Staff reported positive self-reflection when documenting after attending the program.

**Discussion:**

Further research is needed on nursing documentation, particularly in outpatient. The literature supports routinely auditing documentation and using an education intervention based on those audits to reeducate nurses on proper documentation. This technique provides a framework which institutions can implement to assess and improve their own documentation.

## **Poster Number 2**

### *Effects of a Breathing Protocol Therapy in a Patient with Speech Related Impairments Secondary to Scleroderma*

#### Authors:

Shelby Benedicto, MS Candidate, Speech-Language Pathology;

Gladys Siegel, MS CCC-SLP;

Michelle MacRoy-Higgins, PhD CCC-SLP

Faculty Sponsor: Michelle Macroy-Higgins, PhD, CCC-SLP, TSHH, (Professor, Speech-Language Pathology Program)

#### **Background:**

Scleroderma is a rare chronic connective tissue disease characterized by excessive collagen deposition in the skin and various internal organs. Manifestation of the disease may affect multiple systems of the body, including speech production, thus necessitating highly individualized treatment. Currently, there is a lack of research that guides speech-language pathologists on how to treat this population. However, research supports the use of breathing focused therapies for a variety of conditions that present similar symptom manifestations. The purpose of this study is to observe the effects of an *Individualized Breathing Protocol* on the ease of verbal production, in a 74-year-old female with Scleroderma.

#### **Methods:**

A 74-year-old female with Scleroderma who experienced speech interrupting mandibular spasms participated in 45-minute speech therapy sessions. The frequency of spasms was recorded during 2-minute conversation samples taken during pre- and post-*Individualized Breathing Protocol* treatment. Additionally, the participant completed a 5-point Likert scale to rate her level of discomfort during pre- and post- treatment periods. Data from seven 45-minute sessions were included in this analysis.

#### **Results:**

A decrease in spasm frequency was observed during post-treatment assessment for all (7) therapeutic sessions. Results from the 5-point Likert scale ratings showed a consistent decrease in client-reported discomfort following implementation of the *Individualized Breathing Protocol*.

#### **Conclusions:**

The *Individualized Breathing Protocol* appears to have beneficial effects on ease of speech production by decreasing spasms and increasing client comfort. Further research could include measurement of physiological responses to explore the mechanism by which the *Individualized Breathing Protocol* affects mandibular spasms secondary to Scleroderma.

### **Poster Number 3**

#### *A Guide to Using Telepractice for Language Therapy in School-Aged Children*

Authors:

Erin Boyle, B.S.

Donald Vogel, AuD, CCC-A

Faculty Sponsor: Donald Vogel, AuD, CCC-A

#### **Background:**

Various populations of children, including those in urban, rural, and remote areas, experience limited access to speech and language services largely caused by barriers of distance and shortages within the profession of speech-language pathology (SLPs). To address these needs, the American Speech, Language, and Hearing Association (ASHA) has suggested the use of telepractice, or services provided through computing technology and tele-conferencing applications. Research about telepractice typically compares this model to traditional, face-to-face (FTF) services, and has yielded positive results. However, SLPs have reported a lack of knowledge about telepractice ethics, access to adequate technology and resources, and, support for learning treatment techniques unique to this model.

#### **Methods and Results:**

This study provides a research-based tutorial covering various elements of the telepractice process utilizing a case study which exemplifies best practice for school-aged clients including 1) selecting and setting up the technology, 2) assessing clients for eligibility, and, 3) various aspects of language treatment which allow the client to meet goals.

#### **Conclusion:**

Telepractice can be a complex treatment system to deliver services, which requires require continual professional development and competency training for SLPs. This resource assists in providing clinicians with a base of information and steps necessary to engage in telepractice.

### **Poster Number 4**

#### *The Effects of Median Nerve Mobilization on Subjects With Carpal Tunnel Syndrome*

Authors:

Calabro, Jessica, Graduate Student (DPT),

Garrity, Shannon, Graduate Student (DPT),

O'Grady, Bridget, Graduate Student (DPT),

Rothfus, Talia, Graduate Student (DPT),

Faculty Sponsor: Krasilovsky, Gary, PT, PhD

**Background:**

Carpal tunnel syndrome (CTS) is caused by increased pressure of the median nerve at the wrist. Persons with CTS often complain of pain, numbness, tingling, burning, and difficulty with hand movement. The purpose of our research is to examine the effects of nerve mobilization targeting the median nerve on reducing the symptoms in persons with CTS.

**Methods:**

Subjects completed baseline testing before attending nerve mobilization treatment sessions 3 times a week for 6 weeks. Treatments consisted of positioning the neck and arm to elongate the median nerve to its optimal length (without any increase in sensory complaints in the treated hand) and oscillating the most distal segment of the upper extremity through varying degrees of extension at the end range position for 30 seconds. This was repeated ten times with a minutes rest between each repetition. Re-evaluation of baseline testing was done at week 3 and week 6 with completion of the intervention phase. A final re-evaluation occurred 3 months after termination of treatment.

**Results:**

Through nerve mobilization intervention 3 times a week for 6 weeks, subjects reported overall improvements in their CTS symptoms. Subject 1 expressed improvements in subjective complaints of symptoms and increased tolerance of provocative positions of the wrist. Subject 2 demonstrated improved wrist range of motion and decreased episodes of waking at night due to symptoms. These effects were confirmed at 3-month re-evaluation.

**Conclusions:**

Research indicated positive results of CTS with nerve mobilization treatment of the median nerve, which supports previous preliminary research. Based on the findings from this study, nerve mobilization techniques are beneficial interventions in the treatment of CTS.

Carefully monitoring patient response and individualizing the plan of care can further improve effects.

**Poster Number 5**

*Sensitive Measures of Voice-Related Quality of Life in Transgender Women*

Author: Alba Cano, B.S., Avinash Mishra, Ph.D., CCC-SLP

Faculty Sponsor: Avinash Mishra, Ph.D., CCC-SLP

**Background:**

Transgender communication services are a novel sub-field in speech-language pathology. Tools assessing factors that hinder transgender women from using their voices have only recently been developed. The Transsexual Voice Questionnaire for Male-to-Female



Transsexuals (TVQ<sup>MtF</sup>) is the most recently published self-questionnaire intended to evaluate voice quality of life in transgender women. We aimed to determine if the TVQ<sup>MtF</sup> appropriately quantifies transgender women's voice quality of life.

**Methods:**

The TVQ<sup>MtF</sup> and another widely used voice questionnaire, the Voice-Related Quality of Life (V-RQOL), were evaluated and compared with respect to questionnaire characteristics (content and format), how items reflected the categories of the International Classification of Functioning, Disability, and Health (ICF) model: body functions and structure, activities and participation, contextual factors, and the extent to which each questionnaire considered current issues in the transgender community that affect voice-related quality of life in transgender women.

**Results:**

The TVQ<sup>MtF</sup> and V-RQOL are appropriately written and comprise in-depth measures with respect to their intended populations, but the TVQ<sup>MtF</sup> more holistically represents the ICF model and more extensively considers the unique factors that influence voice-related quality of life in transgender women.

**Conclusions:**

The TVQ<sup>MtF</sup> is more sensitive and exhaustive compared to the V-RQOL with respect to how voice affects quality of life in transgender women. It appears that best practice indicates the use of the TVQ<sup>MtF</sup> with transgender women, in comparison to questionnaires that were developed for general voice disorders.

**Acknowledgements:**

We thank the members of the transgender community who assisted, and Julian Soto for his input and inspiration for this study.

**Poster Number 6**

*Non-Pharmacological Interventions to Improve Sleep Among Adults with Advanced Serious Illness*

Authors:

Liz Capezuti, PhD, RN, FAAN

Rana Sagha Zadeh, PhD MArch, Design and Environmental Analysis, Cornell University, Ithaca, NY

Nicole Woody, MHA, Cornell University, Ithaca, NY

Aleksa Basara, BA, Cornell University, Ithaca, NY.

Ana Krieger, MD MPH, Center for Sleep Medicine, Weill Cornell Medical Center, NY

**Background:**

Sleep fragmentation is common among those in the advanced stage of a serious illness. Non-pharmacological interventions have few, if any, adverse effects and are often underutilized in these settings.

**Objective:**

To systemically summarize the literature concerning non-pharmacological interventions to improve sleep among adults with advanced serious illness.

**Methods:**

We searched several databases (Medline Complete, Cumulative Index to Nursing and Allied Health Literature, Wiley Interscience, Ageline, Academic Search Premier, and AMED) for experimental or quasi-experimental studies focusing on sleep outcomes associated with non-pharmacological interventions involving participants with advanced serious illness in any setting. published from 1996 to 2016.

**Results:**

From a total of 2,731 results, 42 studies met the inclusion criteria. A data extraction process led to 5 intervention categories: sleep hygiene (1), environmental (6), physical activity (4), complementary health practices (11), and mind-body practices (13). Of the 42 studies, 22 demonstrated a statistically significant, positive impact on sleep and represented each of the categories. The quality of the studies varied considerably, with 17 studies classified as strong, 17 as moderate, and 8 as weak.

**Conclusions:**

Several interventions have been demonstrated to improve sleep in these patients. However, the small number of studies and wide variation of individual interventions within each category limit the generalizability of findings. Further studies are needed to assess interventions and determine effectiveness and acceptability.

**Poster Number 7**

*Does Rapid Response Teams Improve Patient Outcomes in Acute Settings?*

**Authors:**

Marie Collado (HBSON)

Jenniliza Reyes (HBSON)

Jung Eun Kim (HBSON)

Sophia Beaubrun (HBSON)

Steven Chen (HBSON)

Faculty Sponsor: Professor Weber

The hospital is often seen dense with populations from all walks of life; as a dwelling place of healthy and ill persons. When a patient is demonstrating signs of respiratory distress, a nurse will immediately call a rapid response team to come assist the patient and bring them back to homeostasis. A retrospective review of the literature had interesting results. The hypothesis would be that a rapid response team would have a significant impact on positive patient outcomes. One researcher aimed to evaluate the effect of implementing a physician-led rapid response team (RRT) on mortality in hospitalized patients, the impact of rapid response teams on patient outcomes in a community teaching hospital with 24/7 resident coverage, mortality after in-hospital

cardiopulmonary resuscitation by a (RRT), and implementation of critical care staff based rapid response team. The study by Ahmad, S, (2014) based on a community setting, demonstrated that patient outcomes were not affected by the RRT in a community teaching hospital with 24/7 coverage by residents. Rapid response teams were activated 213 times during this intervention period. No significant difference in inpatient mortality (3.13% pre vs 2.91% post), Code blue calls (3.09 pre vs 2.89 post per 1000 discharges), Unexpected transfers of patients to the ICU (15.8% vs 15.5%). According to Kim et al., (2013) rapid response team do not decrease the rate of mortality after a cardiac arrest in a hospital. This can be due to a mixture of factors, including poor recognition of signs and symptoms of patient deterioration and a lack of consistency in the rapid response team personnel. In contrast, some researchers reported that “The mortality rate after RRT implementation was statistically smaller and the number of patient death was significantly lower post-RRT intervention. Research similarly suggested that RRTs decrease the number of code calls” (Milton Evans October 2013). A study done by Arai, M. (2015), a tertiary 1000-bed hospital’s Rapid Response System (RRS), including critical care nurses, critical care physicians and physical therapists, was introduced in the hospital in 2011. The study has evaluated the activity of RRS in the hospital and their impact by analyzing Modified Early Warning Score (MEWS) that contribute in Unpredicted Hospital Death (UHD), such as attempting to resuscitate the patient during cardiac arrest. From the early implementation and by at the end of 2013, MEWS at scene have decreased from 5.82 to 3.77 and UHD have decreased from 0.58 to 0.30 per 1000 admission per month. The review of the literature suggests that there was evidence that RRS had a marginal increase in improving patient outcomes. The research posed in these articles suggest that the key to better RRT outcomes could be to catch earlier sign and symptoms of patient deterioration through continued staff education.

## **Poster Number 8**

### *Role of Sensory Information on Semantic Networks*

Authors:

Erin Connelly, MS-Speech/Language Pathology and Audiology

Jet M. J. Vonk

Faculty Sponsor: Nancy Eng, PhD, CCC-SLP, TSHH (Professor, Speech-Language Pathology Program)

### **Background:**

Different sensory variables decidedly influence how words are constructed in the mental lexicon. Understanding tribute to word meaning can have direct clinical application. This study investigates how specific semantic features contribute to the concreteness of nouns.

### **Method:**

A total of 124 monolingual English speakers between the ages of 23-69 participated in this study. Each subject rated 244 nouns based on various sensory features; specifically, each noun’s relationship to shape, color, sound, taste/smell, manipulation, and visual motion was evaluated. For example, subjects were asked how much “frog” is associated

with shape color, motion, on a seven point Likert scale. All subjects participated online; all responses were collected and accessed for analyses.

**Results:**

Simple linear regression analysis was used to test our hypothesis that the visual sensory features of shape and color would significantly predict a noun's concreteness rating. Results of regression models indicated that three sensory features – shape, sound and visual motion – significant contributed to concreteness ratings of nouns.

**Discussion:**

There is a hierarchy of sensory features that most strongly predict a noun's concreteness rating. Our results add to the existing body of knowledge about how word knowledge is acquired along with how words are processed, stored and retrieved.

**Poster Number 9**

*The Effects of Wheelchair Seat Type and Seat Cushion Composition on Peak Pressure and Contact Area Using a Pressure Mapping System with Healthy Adults*

Authors:

Dr. Thomas Holland, Staff Hunter College (Department of Physical Therapy)  
Danaher Dempsey, Graduate Student at Hunter College (Doctor of Physical Therapy Program)  
Lisa Blum, Graduate Student at Hunter College (Doctor of Physical Therapy Program)  
Caitlin Hynes, Graduate Student at Hunter College (Doctor of Physical Therapy Program)  
Juliette Wertz, Graduate Student at Hunter College (Doctor of Physical Therapy Program)

Faculty Sponsor: Dr. Thomas Holland, Hunter College (Department of Physical Therapy)

**Background:**

The purpose of this study was to compare seated pressure distribution with and without a solid seat insert when using two different standard wheelchair cushions. Recent literature recommends the use of solid seat inserts appear to have a positive effect on wheelchair sitting posture when compared to standard sling seats. However, the impact of using the solid seat insert in conjunction with different standard wheelchair cushions on skin to support surface pressure is unknown.

**Methods:**

This study was designed to compare solid seat wheelchair inserts to traditional sling seats using a healthy population when sitting either on a foam or reactive air wheelchair cushion. Peak pressures and contact area were measured using the Precision Seating Solutions PS 256 Pressure Mapping System.

**Results:**

A quantitative analysis revealed that solid seat inserts did not create differences in skin to support surface pressures when compared to the standard sling seat and the choice of wheelchair cushion did not influence these pressures.

**Conclusion:**

The collected data does not support the hypothesis that a solid seat insert increases contact pressure and requires a wheelchair cushion designed to improve pressure redistribution in healthy individuals.

**Acknowledgements:**

This research was approved by the Human Research Protection Program of Hunter College, CUNY.

**Poster Number 10**

*Use of Educational Apps in Preschool Children and their Impact on Emergent Literacy*

Author: Stefanie DiGrazia, Speech Language Pathology, MS

Faculty Sponsor: Aviva Lerman, M.A.

**Issue:**

Children encounter technology daily. It is important for parents and educators to understand how the use of technology impacts language and literacy development. Current literature suggests over use of technology could negatively impact language development, but little is known about the relationship between technology and literacy development. However, if technology includes apps with many print referencing opportunities, this may actually be beneficial to literacy development.

**Description:**

Parents completed a survey related to their child's use of technology and the apps their children use. Three children ages 4;6 to 5;7 completed the Early Language and Literacy Assessment (ELLA). Responses to the survey were compared with the results from the ELLA. Additionally, apps listed by parents were examined to determine what parents perceive as educational.

**Lessons Learned:**

Children who experienced more print referencing opportunities, regardless of medium (i.e., traditional books or apps), showed better early literacy skills. However, children who were exposed to more technology had fewer print referencing opportunities than children who were exposed to less technology.

**Next Steps:**

The sample collected in this study was small; further research should replicate this study with a larger sample size. Parents and educators should be encouraged to continue to engage in print referencing with preschool children as often as possible. Additionally, independent use of apps and mobile devices should be limited in young children, and apps promoting print referencing should be more prominent in this age group.

## **Poster Number 11**

### *Differences in the Processing of Sign Language After Left and Right Hemisphere Damage*

#### **Authors:**

Leyat Elkobi (Graduate, Hunter College, SLP)

Aviva Lerman (Supervisor, Hunter College, SLP)

#### **Issue:**

Although sign and spoken languages share the same core linguistic features and are processed in similar brain regions, sign and spoken languages are produced through different modalities. This literature review addressed the following question: What differences in the processing of sign language will we expect after left and right hemisphere damage?

#### **Description:**

An in-depth review of the literature was conducted using web-based search engines including Google and Google Scholar, and Electronic databases such as Pubmed, American Journal of Speech-Language Pathology, Taylor & Francis Online and Medscape. Many keywords were used such as *sign language Broca's aphasia*, *sign language gesture production*. 13 studies were analyzed for this study.

#### **Results:**

Language deficits of left hemisphere damage in sign language users are comparable to those of aphasia in spoken language users. Additionally, the results indicate that right hemisphere damage in sign language users can impair functional communication skills, comparable to those of spoken language users. Furthermore, right hemisphere damage can impair comprehension and production of gestures while leaving sign language unimpaired, even when the gestures share similar hand movements to signs on the surface.

#### **Conclusions and recommendations:**

Sign and spoken language deficits are processed in a largely parallel manner. By using this knowledge as a foundation upon which to base intervention, Speech-Language Pathologists can create treatment plans for this population.

## **Poster Number 12**

### *Nursing during the Holocaust: Compassion or Complicity?*

Author: James Gallager (QCC Nursing)

Faculty Sponsor: Susan Riekert (Assistant Professor, QCC)

#### **Issue:**

In the name of racial purity, many abominations were carried out against the Jewish Culture during The Holocaust. While physician roles were recognized for their

inhumanity throughout The Holocaust, we explored the largely ignored nursing role. Did the nurses during The Holocaust act with complicity or compassion?

**Description:**

By participating in the Kupferberg Holocaust Center's (KHC), "Complicity and Collaboration during the Holocaust" Project, we attended educational events at the KHC, interviewed Holocaust survivors and performed a literature review in search of these answers. The limited review of the research literature was conducted using CINAHL and Medline.

**Results:**

Understanding the perspectives of Holocaust survivors towards medical professionals, both during and after The Holocaust, allowed us to better understand the role nurses played in The Holocaust. By the end of our research, we learned that nurses were taught to be obedient and to never question the doctor's orders. Performing our research did indicate that nurses were complicit during The Holocaust by either following these doctors' orders, or simply by choice.

**Conclusions and recommendations:**

Understanding the perspectives of both the Holocaust nurses and survivors of this horrific genocide helps us all learn from history's mistakes and guides our steps in the medical field toward a more humanitarian environment. It is our moral obligation as nurses to educate the public on these perspectives and research results in hopes of preventing a reoccurrence in our future, and to continue to promote the essential Nursing Code of Ethics rule, "to do no harm".

**Poster Number 13**

*Judging the Grammaticality of Caribbean Creole English: A Comparison of Non-Caribbean and Caribbean SLPs*

Authors:

Zakiya Glynn (Graduate, Speech-Language Pathology)

Aviva Lerman (Graduate, Speech-Language Pathology)

Faculty Sponsor: Aviva Lerman, M.A., SLP

**Background:**

This study investigates whether non-Caribbean SLPs judge grammatically correct Caribbean Creole English (CCE) sentences to be grammatical or ungrammatical, compared to a control group of Caribbean SLPs.

**Methods:**

Caribbean and non-Caribbean SLPs were recruited through the City University of New York (CUNY) Hunter College (including recent alumni, professors, clinical supervisors, externship supervisors) and the Caribbean Speech Hearing Association (CARIBSHA). A between-subjects research design was implemented, and participants were required to

complete two tasks: (1) A grammaticality judgement task and (2) A questionnaire that established their ethnicity, language background and exposure, and professional experience. Accuracy scores from the two groups of SLPs were compared and an error analysis was also conducted.

**Results:**

Caribbean and non-Caribbean SLPs were similar overall for accuracy scores. However, in a subset of sentences that are ungrammatical in both Standard American English (SAE) and CCE, we found that non-Caribbean SLPs were less accurate, labeling more of these types of sentences as grammatical (a t-test across the two groups showed a trend towards significance,  $p=0.1384$ ).

**Conclusion:**

Non-Caribbean SLPs have a tendency to accept more ungrammatical sentences as grammatical when compared to Caribbean SLPs, possibly due to their unfamiliarity with CCE. Non-Caribbean SLPs are therefore at risk of underdiagnosing a language disorder in clients with a CCE language background.

**Poster Number 14**

*The Effect of Positioning on Oxygen Saturation During Preterm Infant Feeding: A Meta-Analysis*

Authors:

Katherine Griswold-Moran (Graduate Student, Department of Speech-Language Pathology)

Dr. Gail McCain, PhD (Hunter-Bellevue School of Nursing)

Dr. Donald Vogel AuD (Department of Speech-Language Pathology and Audiology)

Faculty Sponsor: Dr. Donald Vogel AuD, CCC-A, Department of Speech-Language Pathology and Audiology

**Background:**

Feeding methods that mimic breastfeeding have been found to increase physiological stability in preterm infants during feeding. However, little is known about the effect of feeding position. The purpose was to conduct a meta-analysis of current research evaluating the efficacy of the elevated side-lying (ESL) feeding position as technique for promoting physiological stability in preterm infants

**Methods:**

A comprehensive database search was conducted using PubMed, CINAHL, ProQuest Dissertations and Theses A&I, and the Cochrane Register of Controlled Trials. Relevant studies were evaluated for bias using the Cochrane Collaboration's Tool for Assessing Risk of Bias. Analysis of studies measuring oxygen saturation outcomes during feeding was conducted.



**Results:**

Five studies were found evaluating the effect of feeding position, and several studies on the topic had high risk or unclear risk of bias. Preliminary results indicate that ESL feeding position does significantly increase oxygen saturation during feeding as compared to the typical elevated supine (ESU) feeding position.

**Conclusions:**

The results of studies currently available indicate that use of the elevated side-lying (ESL) feeding position for feeding preterm infants shows promise in increasing physiological stability over other, more common, feeding positions. However, more high-quality research into the effects of feeding position on preterm infants is needed.

**Poster Number 15**

*The Effectiveness of an Educational Program to Improve Knowledge on DVT Prophylactic Guidelines Among Nurses*

Author: Rose Holmes, MSN, RN, AGPCNP-BC (DNP Student)

Faculty Sponsor: Caroline M. Hewitt, DNS, RN, WHNP-BC, ANP-BC

**Purpose:**

The purpose of this project is to assess the effectiveness of didactic lectures on nurses' knowledge of deep vein thrombosis prophylaxis guidelines and the impact on their knowledge in improving DVT prophylaxis compliance rate.

**Background and Significance:**

One in every one thousand women will develop DVT during pregnancy; the risk is tenfold more likely during pregnancy compared to those who are not pregnant. In New York State, Deep Vein Thrombosis (DVT) accounts for approximately 30% of all pregnancy-related mortality in 2013-2016.

**Community Needs Assessment:**

Harlem Hospital Center is a 286 bed facility located in Central Manhattan. It serves communities that are poor and densely populated in NYC. The results of a recent OB/GYN Breakthrough survey showed various gaps in DVT prophylaxis compliance rates. There are no standardized DVT risk assessment tool and different protocols result in ineffective use of DVT prophylaxis measures among the interdisciplinary teams. Recommendations from the compliance committee is to re-educate the interdisciplinary teams on DVT prophylaxis guidelines.

**Methods:**

Quality improvement project to evaluate OB/GYN nurses knowledge of DVT prophylactic guidelines and the effect of continuing education using didactic lectures and reminder posters on DVT prophylaxis compliance rates.

**Interventions:**

Pre and post interventional self-administered questionnaires will be distributed to nurses on deep vein thrombosis prophylaxis guidelines, risks assessment measures and pharmacological and non-pharmacological prophylaxis measures. Didactic lectures on deep vein thrombosis prophylaxis guidelines will be given and reminder posters will be exhibited on walls in the nurses' station and lounge. A Four week post intervention follow up survey will be conducted. The target population will be all registered nurses in OB/GYN involved in bedside care.

**Poster Number 16**

*An Examination of the Effectiveness of Community-Based Diet and Nutrition Programs Measures in Decreasing the Prevalence of Youth-Onset Type II Diabetes Mellitus*

**Authors:**

Kel-Ann Hsieh (Graduate, AGNP Candidate)

Sheila Spencer (Graduate, AGNP Candidate)

Melissa Huang (Graduate, AGNP Candidate)

Faculty Sponsor: Chuck Reuter, PhD, RN

**Background:**

The purpose of this study was to determine the effectiveness of community-based diet and nutrition programs in preventing Type II Diabetes Mellitus in children.

**Methods:**

Using Hunter College Libraries' OneSearch, we accessed CINAHL complete, MEDLINE Complete, PubMed and supplemented with Google Scholar. We used the search terms: Type 2 Diabetes, youth, prevention, intervention, diet, nutrition, and community. Initial searches using the above databases and terms yielded approximately 300 search results. Studies included articles published in English between 2007-2018 with varying sample sizes.

**Results:**

A continuous multifaceted plan including diet and exercise is the most effective method of Type 2 Diabetes prevention in youth. Including family members in methods of prevention increase the effectiveness of the interventions.

**Conclusions:**

Our recommendation is implement a multifaceted approach to Type 2 Diabetes prevention in youth. However, we believe that parent involvement, on top of youth health education programs, will amplify desired outcomes.

## **Poster Number 17**

### *Impact of a Clinical Dashboard and Written Feedback on Sepsis Bundle Compliance within an Emergency Department*

Author: Jessica Hsu, MSN, AGPCNP-BC DNP Student

Faculty Sponsor: Dr. Lynda Olender, PhD, RN, ANP, NEA-BC, Distinguished Nurse Lecturer

#### **Background:**

Clinical and quality dashboards provide constant access to information for clinicians, which can improve adherence to clinical practice guidelines and improve patient care (Dowding et al., 2015). In the Emergency Department (ED) of an urban academic hospital, all nurses have access to a clinical performance dashboard which displays individual sepsis performance; specifically, the completion of the 3-hour sepsis bundle developed by the Surviving Sepsis Campaign. This dashboard is accessed voluntarily by nurses but is not readily visible or actively presented to the nurses. Studies with dashboards constantly visible report more positive outcomes than studies where clinicians chose to access the dashboard (Dowding et al., 2015). The purpose of this quality improvement initiative was to improve the performance of the 3-hour sepsis bundle among registered nurses in the ED by delivering monthly individual feedback through a sepsis dashboard.

#### **Methods:**

This quality improvement project was conducted between August 2017 and January 2018. ED nursing staff was randomized into a control group and intervention group. The control group consisted of nurses who voluntarily accessed the dashboard, which is the standard practice. Nurses in the intervention group received an email with their dashboards along with written feedback on their performance each month. This project compared monthly performance rates of the 3 hour sepsis bundle between the intervention group and the control group. Nurse engagement in quality improvement, satisfaction, and utilization of the sepsis dashboard was evaluated through an anonymous post-intervention survey sent to all participants.

#### **Results:**

During the intervention period (August 2017-December 2017) there were inconsistent numbers of sepsis cases per month among both the control and intervention groups. Sepsis 3-hour bundle performance, subsequently, was also inconsistent among both the control and intervention groups. Performance rates in the control group ranged from 42.86%-100%, with an average rate of 80.33% and a standard deviation of 22.68. The intervention group ranged from 0%-81.82%, with an average 41.86% performance rate and a standard deviation of 28.7. The response rate for the survey was 33.33% (13/39). Most responses were mixed across the Likert scale; however positive responses “agree” and “strongly agree” accounted for 53.85-69.23% of responses addressing the utility of the dashboard in quality improvement. Only 38.46% of respondents agreed or strongly agreed that they knew how to access the dashboard, and 61.54% disagreed or strongly disagreed.

**Conclusions:**

The sample size for this project was small (control n=20; intervention n=18), and the survey response rate was low. This did not generate a large enough volume of sepsis cases or survey responses to draw statistically significant conclusions. A majority of the responses reported positive perceptions of the value of the sepsis dashboard in quality improvement. A larger sample size and longer intervention period are needed to produce significant results. Many participants, from both the intervention and control groups, did not know how to access the dashboard. Future studies should examine the effect of a clinical dashboard that is readily accessible or constantly visible for users.

**Poster Number 18***Mental Health Service Utilization among Older Chinese-Americans***Authors:**

Xiaoxia Huang, Undergrad Generic BSN

Ying-Yu Chao, PhD, RN, GNP-BC

Jin Young Seo, PhD, RN, WHNP-BC

Faculty Sponsor: Jin Young Seo, PhD, RN, WHNP-BC

**Background:**

Chinese-Americans constitute the majority of the total Asian American population. Older Chinese-Americans have to overcome the challenges associated with acculturation, language barriers, and the breakdown of the traditional family structures. Depression in elderly Chinese immigrants can often go under-recognized and untreated because of limited English proficiency, stigma of mental illness, and lack of access to mental health care. There is a need to understand their experiences of mental health help-seeking behaviors among older Chinese-American immigrants. The purpose of this study was to understand the experience of seeking mental health services among older Chinese-Americans.

**Methods:**

A qualitative descriptive study was conducted. Chinese immigrants 60 years or older living in New York City were recruited to share their experience of mental health service utilization. Fourteen semi-structured and qualitative individual interviews were conducted in Cantonese or Mandarin. The interviews were audio-recorded and then transcribed verbatim. Chinese transcripts were translated into English. Data was analyzed using content analysis method. With team approach, data was analyzed independently and collaboratively using the NVivo software.

**Results:**

Specific factors contributing to emotional distress in older Chinese-Americans included difficulties finding or keeping jobs, financial hardships, and language barriers. Cultural influences (losing face) and lack of resources are barriers to seeking mental health services. However, the advices of friends and referrals from family physicians facilitated help-seeking behaviors on mental health service utilization.

**Conclusions:**

The results of this study would help make better-informed interventions to promote early-screening for mental health and to ensure prompt treatment among older Chinese Americans.

**Poster Number 19**

*Evaluating the Effectiveness of Cultural Consultation in the Home Hospice Setting*

Author: Ian Sherman, RN, AGPCNP-BC, DNP Student

Faculty Sponsor: Elizabeth Capezuti, PhD, RN, FAAN

A home hospice organization, based in a large urban area, noted that their staff voice concerns about their ability to meet the cultural needs of Orthodox Jewish patients and families. Also, the organization was concerned with the 22.6% rate of unanticipated live discharges to acute care among their Orthodox Jewish home hospice patients. The non-Orthodox Jewish staff noted improvement in their interaction with patients when Orthodox Jewish staff participated in individual cases. In response, the organization piloted the use of an Orthodox Jewish cultural consult team to reduce the live discharges to acute care. The present project investigated whether, after the introduction of a readily available Orthodox Jewish cultural consult team, hospice staff felt that they were now better able to deliver care that met patient and family needs, and if this change led to increased work satisfaction. A focus group (n=15) of non-Orthodox staff was conducted, and their observations and lived experience were compared to the observations of the Orthodox Jewish staff consult members (n=5). There was strong consensus that the easing of the consultation process improved staff satisfaction, as they were able to deliver care that was more readily accepted and appreciated by Orthodox patients and families.

**Poster Number 20**

*Socially Speaking: A Systematic Review of Social Communication Treatments for Children*

Author: Michelle Iocco (Graduate Student Speech-Language Pathology)

Faculty Sponsor: Michelle Macroy-Higgins PhD CCC-SLP, TSHH, (Professor, Speech-Language Pathology Program)

**Issue:**

Individuals diagnosed with Social Communication Disorder (SCD) have significant difficulty communicating for social purposes, adversely affecting their ability to socialize and maintain relationships. Clinicians treating this population typically revert to judgment and experiences to guide treatment rather than using evidence-based approaches. This can result in treatments that fail to address all of the student's social

communication (SC) needs. Therefore, the purpose of this review is to identify evidence-based interventions that improve SC in children with SCD.

**Description:**

The literature review used the following databases: PsycINFO, PubMed, SpeechBite, JSTOR, and Sage Journals electronic databases with terms: *social communication, social communication disorder, pragmatic language, and pragmatic language impairment, pervasive developmental disorder not otherwise specified, social language, social interaction, social cognition, pragmatics* in conjunction with *children, treatment and intervention* to identify articles using SC interventions with children aged 5 – 8 years old with SCD. Methodological quality was assessed using the ASHA levels-of-evidence scheme. Studies were given scores of 1-3 for each of the following domains of SC: *social interaction, social cognition, and pragmatics*.

**Results:**

Ten studies evaluating the effects of treatments for children with SCD were identified. Methodological quality ranged from 3-9; three of the 10 studies received scores of 7 or higher. Five studies included all three aspects of SC, three studies included two areas of SC and two articles focused on one area of SC.

**Conclusion:**

Treatments that target all three domains of social communication may be the most effective in improving social communication in 5 - 8 year-old children.

**Poster Number 21**

*Music Processing in Aphasia*

Authors:

Ann Jacobs, MA

Desiret Nuesi, BA

Nancy Eng, PhD, CCC-SLP

Faculty Sponsor: Nancy Eng, PhD, CCC-SLP, TSHH (Professor, Speech-Language Pathology Program)

**Background:**

Neuroimaging studies show language and music processing overlap in non-brain damaged individuals - drawing interest to comparing and contrasting language and music. Music, like spoken language, make use of sensory input for processing, namely, notes and phonemes, respectively.

**Aim:**

That one mechanism might support two seemingly different systems is the focus of this project. We investigated whether people with aphasia also have difficulties attending to systematic patterns i.e., harmonic relations in music. We predict that aphasia does not

interfere with ability to detect music errors and that prior musical training mitigates the effects of aphasia on music processing.

**Methodology:**

Two musicians with aphasia (MA) and four non-musicians with aphasia (NMA) (and 10 matched controls) participated in two different tasks – a grammaticality judgment task where subjects decided whether a spoken sentence was grammatical or not and a musicality judgment task where subjects decided when a small piece of music ‘sounds good’. Tasks were designed to evaluate sensitivity to grammatical sentences and sensitivity to musical syntactic (harmonic) relations in chord sequences.

**Results:**

MA subjects scored higher than NMA subjects and non-musician control subjects on a music error detection task. MA subjects performed in the range of non-brain damaged musicians.

**Conclusion:**

Results indicate that musical syntactic processing is preserved in brain damage for musicians with aphasia. This suggests that music training fortifies musical ‘sense’ and urges further investigation of music processing as being supported by some distinct structure that may be dissociated from those supporting language processing.

**Poster Number 22**

*The Effects of Velocity Training on Gait Endurance in Persons with MS*

Authors:

Herb Karpatkin PT, DSc (faculty, Hunter DPT program)

Allison Benson (Graduate, Hunter DPT program)

Nolan Gardner (Graduate, Hunter DPT program)

Naomi Leb (Graduate, Hunter DPT program)

Nicole Ramos (Graduate, Hunter DPT program)

Andrea Xu (Graduate, Hunter DPT program)

Faculty Advisor: Herb Karpatkin, PT, DSc (Hunter Department of Physical Therapy Program)

**Background:**

Decreased endurance is a chief complaint of persons with Multiple Sclerosis (PwMS). Gait Velocity Training (GVT) has been shown to increase endurance in healthy and neurologically-impaired populations. The purpose of this study was to evaluate the safety, feasibility, and efficacy of GVT for PwMS. We hypothesized participants would experience increased perceived walking ability, walking speed and endurance, and decreased falls risk.

**Methods:**

This pilot study took qualitative/quantitative measures at pre- and post-test.

Participants then completed 6 weeks of biweekly GVT, consisting of 20-second bouts of guarded maximal-speed ambulation with rests between, increasing in number of bouts from the first session. Following post-testing, statistical analyses were performed.

**Results:**

9 PwMS initiated this study, with 1 dropping out due to unrelated injury. Significant improvements were found in the 6-Minute Walk Test (6MWT) ( $p=0.020$ ) and Dynamic Gait subsection of the MiniBESTest (DG) ( $p=0.047$ ). Insignificant differences were found in the Visual Analogue of Fatigue Scale (VAFS) ( $p=0.461$ ), with quality of life (QoL) and fatigue measures remaining stable. No falls occurred, and mean participant attendance was 85.4%.

**Conclusions:**

This GVT intervention was shown to be both feasible and safe as measured by falls, attendance, and QoL/VAFS/fatigue measure stability. GVT additionally improved walking endurance (measured by the 6MWT) and falls risk (DG), however it did not improve perceived walking ability nor walking speed (MSWS-12, 25-Foot Walk Test).

**Acknowledgements:**

Grant support was provided by the Multiple Sclerosis Foundation.

**Poster Number 23**

*Different Types of Language: A Case Study of ASD*

Author: Joanna Kominis, MS in Speech/Language Pathology and Audiology

Faculty Sponsor: Nancy Eng, PhD, CCC-SLP, TSHH (Professor, Speech-Language Pathology Program)

**Background:**

Language and mathematics are inextricably linked (ASHA, 2010). Math word problems and logic games are a particular challenge for children with language deficits. High functioning students with Autism Spectrum Disorder (HF ASD) use sophisticated mental strategies to solve math problems. This study documents different language demands in solving math problems and logic problems.

**Methods:**

DJ is a 14 year-old high-functioning ASD student who was taught strategies to solve Law School Admissions Test (LSAT) problems using language skills already mastered. Four logic "games" requiring grouping, matching, and ordering of elements were used for treatment. Each game began by outlining the premise ("there are five people who might attend this afternoon's meeting") and establishing conditions governing the relationships among the subjects ("if Amy is present, then Bob is not; if Cathy is present, then Dan is present..."). DJ was taught to draw conclusions from statements ("What is the maximum



number of people who could be present?"). Since rules do not produce a *single* "correct" set of relationships among all elements, DJ must analyze the range of possibilities embedded in the rules.

**Results:**

Despite language processing deficits, DJ acquired skills to solve LSAT analytical reasoning problems.

**Conclusions:**

HF students with ASD present a range of language abilities and disabilities that are inadequately captured using traditional assessment of language skills. Limitations of formal testing are highlighted and call attention to the complex logical reasoning skills that some of these individuals may have. This relative strength of some HF ASD individuals should be considered in academic and vocational planning.

**Poster Number 24**

*An Evaluation of the Effectiveness of Weekly Post-Discharge Phone Calls as a Preventative Measure to Decrease Hospital Readmission Within 30 Days for Heart Failure Patients.*

Author: Jacqueline Lagao-Guia MSN, RN, FNP-BC

Faculty Sponsor: Caroline M. Hewitt, DNS, RN, WHNP-BC, ANP-BC

**Purpose:**

To evaluate the effectiveness of weekly post-discharge phone calls as a preventative measure to reduce the number of readmissions for heart failure (HF) within 30 days of discharge.

**Background & Significance:**

By 2030, in the U.S., the estimated costs for heart failure care would exceed \$160 billion. Readmissions plays a role in unnecessary medical spending which may be avoided by patients taking an active role in managing their healthcare needs. Promoting health awareness and patients' engagement with self-care by providing added support and continuous post-discharge teaching will reduce the likelihood of HF readmission.

**Community Assessment:**

The Lower East Side (LES) including Chinatown in New York City (NYC) is a multiethnic community where socioeconomic factors such as lack of education, limited English proficiency and poverty level contributes to HF readmission.

**Agency:**

A 400-bed acute care hospital located in the LES of NYC.

**Intervention:**

The primary investigator will assess in-patients' baseline knowledge of HF, provide teaching prior to discharge and supply disease specific education follow up via weekly post-discharge phone calls within the first 30 days.

**Evaluation Methods:**

Pre and post-test questionnaire to measure change in HF knowledge. Comparison of post-intervention HF readmission rate to the hospital's average HF readmission rate and to the national average HF readmission rates.

**Poster Number 25**

*Effectiveness of Fecal Management Systems (FMS) in Maintaining Skin Integrity:  
A Limited Literature Review*

Authors:

Cassandra Lee (AAS Student, QCC)

Yin Yun Zheng Li (AAS Student, QCC)

Leyya Ghany Pootoolal (AAS Student, QCC)

Faculty Sponsor: Randelle I. Sasa (MA, RN-BC, CMSRN, CCRN, Assistant Professor at QCC)

Fecal management systems (FMS) were created primarily to prevent contact between skin and fecal matter especially when patients have actual or potential skin breakdown, in the backdrop of acute or chronic debilitating diseases. Skin integrity is a nurse-sensitive quality indicator, and treating patients with impaired skin integrity costs \$9-11 billion annually. Anecdotes and expert opinion attest to the effectiveness of FMS in maintaining skin integrity, yet literature is few and far between.

A limited literature review was conducted using CINAHL, EBSCO, ProQuest, and Google Scholar databases to determine the effectiveness of FMS use in maintaining patients' skin integrity. Studies that monitored patients' skin during and after use of FMS systems were included in the analysis. Case reports focusing on complications that do not relate to skin integrity, as well as manufacturer-sponsored product articles were excluded.

Based on the literature review, FMS is a convenient, easy to use, effective, and cost-efficient way to ensure patients' skin integrity. However, care providers must ensure adherence to manufacturer recommendations regarding short-term use (i.e., no more than 29 days), as complications such as rectal mucosal damage, rectal bleeding, and sphincter loss have been reported. It is recommended that more studies be conducted to increase the sample size of patients observed, which in turn, will increase generalizability of the findings.

**Poster Number 26**

*Integrating a Novel Hybrid National Diabetes Prevention Program in Primary Care: Enhance Program Attendance and Decrease Weight*

Author: Brian Locsin, ANP

Faculty Sponsor: Dr. Lynda Olender, PhD, RN, ANP, NEA-BC, Distinguished Nurse Lecturer

**Background/Purpose:**

As of 2017, 86 million (or 1 out of 3 American adults) have prediabetes. The National Diabetes Prevention Program (NDPP) is a community-based program shown to decrease the incidence rate of diabetes by greater than 50%. NDPP implementation research has identified that timing of sessions and transportation to meetings contributes to poor attendance. A hybrid approach that combines remote focus group visits via telephone conferencing with the traditional in-person group visits would help alleviate barriers to attendance.

This study explores the effect of a hybrid NDPP intervention in a primary care office setting on patient attendance and weight loss in 16 weeks.

**Methods:**

This feasibility study utilizes Barbara Resnick's Theory of Self Efficacy. Five patients with prediabetes, who are already established in the Weill Cornell Internal Medicine Associates practice, are selected based on A1C (5.7 – 6.4) and BMI (> 24 kg/m<sup>2</sup>). The intervention will mirror the NDPP core curriculum 16-week sessions; the main difference being the use of a hybrid (telehealth and in-person group counseling) NDPP intervention. Weight and attendance will be monitored weekly. The goal for attendance is participation in greater than 80% of sessions. The weight loss goal is 5% of starting body weight.

**Results:**

All participants have lost at least 3% of their baseline body weight after 11 sessions. Two participants reached or exceeded the weight loss goal. More than half of the participants attended 90% of sessions; while the rest of the participants attended greater than 80% of sessions.

**Implications:**

Implementing the program in a primary care setting using a novel hybrid NDPP provides organizations with two distinct advantages over community in-person programs; an established trust and familiarity with the organization and the flexibility to participate from home. Research has shown that the NDPP is effective in decreasing diabetes incidence; thus, finding ways to increase its reach, reduce barriers to participation and optimize its utilization is essential.

**Poster Number 27**

*Executive Functioning and Language Skills in an Adult Female with a Learning Disability*

Authors:

Ekasha Louis (Graduate, Speech Language Pathology & Audiology)

Michelle MacRoy-Higgins (Faculty, Speech Language Pathology & Audiology)

Faculty Sponsor: Michelle MacRoy-Higgins PhD CCC-SLP, TSHH

**Background:**

Research has shown that adults with learning disability (LD) present with deficits across multiple executive functioning (EF) domains with the most significant difficulties observed in *working memory (WM)*. Skills in WM correlate with performance in reading

and writing. However, there is limited research examining the influence of EF skills on language and literacy in adults with LD. This case study examines EF, language and literacy skills in an adult with LD.

**Method:**

The participant was a 36-year-old Chinese-English bilingual female diagnosed with LD. Skills in the following EF domains were measured using subtests from standardized tests or computerized tasks: *working, short-term and long-term memory, processing speed, cognitive flexibility, planning/problem-solving, attention, auditory processing, visual processing and crystallized and fluid intelligence*. Cognition, language, reading and writing were assessed using the *Woodcock-Johnson tests of Cognitive Ability-Revised*, the *Comprehensive Test of Phonological Processing*, the *Assessment of Language-Related Functional Activities*, the *Gray Oral Reading Tests-5<sup>th</sup> edition* and the *Test of Written Language-4<sup>th</sup> edition*. Three rating scales: *Executive Function Questionnaire*, the *Adult ADHD Self-Report Scale Symptom Checklist* and the *Pragmatic Protocol* were also completed.

**Results:**

Deficits were observed in the EF domains of *WM* and *processing speed* and in the linguistic domain of *auditory processing*. Other EF and linguistic skills including reading and writing were average.

**Conclusions:**

Deficits in *WM, processing speed and auditory processing* likely contributed to the participant's learning difficulties in childhood. However, as an adult, these deficits may not substantially affect her skills in language, reading and writing needed for daily functioning.

**Poster Number 28**

*Effect of a Lifestyle Modification Program on Metabolic Variables in Community College Students Identified with Prediabetes*

Author: Mary Ann Rosa MSN, COS-C, GNP-BC, CDE, DNP-S

Faculty Sponsor: Dr. Lynda Olender, PhD, RN, ANP, NEA-BC, Distinguished Nurse Lecturer

**Project Purpose:**

To identify the effects of a lifestyle modification program on the metabolic risk profile of community college students ages 18-25 as compared to usual care over a three-month timeframe.

**Background and Significance:**

Prediabetes is a public health emergency (CDC, 2017]. Eighty six million people have prediabetes and many are unaware (CDC, 2017). Seventy per cent of people with

prediabetes will develop diabetes and have complications at diagnosis (Bao et al., 2016). Multiple studies recognize a gap in identifying young adults with prediabetes.

**Community Assessment:**

Data obtained from the American Association-National College Health Assessment Annual Report (2016) illustrates the prevalence of risk factors in college students. The targeted college students fall into the high risk ethnic groups for prediabetes.

**Agency Description:**

The Department of Health Services is the setting. The mission is to make quality health care available to all students. Current health process does not include prediabetes screening as a usual protocol.

**Intervention (include rationale, theory & population considerations):**

Screening will be done with the CDC prediabetes risk tool, and confirmed with a hemoglobin A1c (HbA1c). Randomization to a usual care group, or an intervention group for weekly sessions using the Transtheoretical Model for Health Change will follow.

**Evaluation Methods (e.g., design – pre-post single group QI project, expected sample, procedures):**

Blood pressure, weight, body mass index, waist circumference, FBG, HgA1c and a quality of life survey will be measured at baseline and at three months.

**Conclusion:**

Outcomes can lead to raised awareness of a health emergency in a vulnerable population, policy changes, and improved health.

**Poster Number 29**

*Use of Inhaled Lavender Aromatherapy as an Anxiolytic in Hospitalized Patients with COPD*

Authors:

Mary C. McGuinness, MBA, MS, RN-BC, AGPCNP-BC, DNP Student

Caroline M. Hewitt, DNS, RN, WHNP-BC, ANP-BC

Faculty Sponsor: Caroline M. Hewitt, DNS, RN, WHNP-BC, ANP-BC

**Background & Significance:**

Chronic Obstructive Pulmonary Disease (COPD) is currently the fourth leading cause of death in the world. The 2017 GOLD report notes the importance of diagnosing and managing comorbid conditions, including anxiety, in the COPD patient. Anxiety has been found to be a significant and frequent comorbidity with COPD. Patients with anxiety have higher rates of mortality and readmission after a COPD exacerbation.

Clinical aromatherapy is a holistic and integrative approach to symptom relief. The essential oil lavender has been shown in numerous studies to be safe and efficacious as an anxiolytic with mild analgesic and sedative effects.

**Methods:**

A quantitative, quasi-experimental one-group pretest-posttest design, involving adults with a primary diagnosis of COPD will be used. Aromatherapy treatment will consist of application of 3 drops of lavender essential oil to a 2x2" cotton gauze, attached to the front of the patient's gown, approximately 12 inches below their nose. Patients will be asked to breathe normally and smell the lavender essence for 3 hours.

**Results:**

It is expected that comparison of the of the Beck Anxiety Inventory scores before and after lavender aromatherapy will be statistically significant ( $p < 0.005$ ).

**Conclusions & Implications:**

It is predicted that use of inhaled lavender aromatherapy will reduce self-reported perception of anxiety in hospitalized adults with COPD. When anxiety is reduced, the patient's capacity to participate in the medical and nursing plan of care is increased. Lavender aromatherapy provides a low risk, cost effective, patient pleasing strategy to reduce anxiety which is often comorbid with COPD. This simple intervention has the potential to improve patient outcomes and increase patient satisfaction.

**Poster Number 30**

*Verbal Communication in a School-Aged Child with Autism Spectrum Disorder during Play With Handheld Screen Devices and Manipulatives*

Author: Alexandra McGuire (MS- Speech-Language Pathology Student)

Faculty: Avinash Mishra, Ph.D., CCC-SLP

**Background:**

Literature has indicated that increased exposure to electronic devices and extensive screen time may contribute to delayed expressive language skills, reduced cognitive ability, and deficient social skills in typically developing (TD) children. Children with Autism Spectrum Disorder (ASD) may be at greater risk given deficits in expressive, receptive, and pragmatic language. Therefore, we aimed to determine if increased exposure to electronic devices would have a negative impact on verbal communication in a child with ASD.

**Methods:**

A six-year-old male diagnosed with ASD was seen across three sessions. During session one, the child was administered the Expressive One Word Picture Vocabulary Test and a parent questionnaire was completed. During sessions two and three, the child was observed during play with toys and with a handheld electronic device. The number of utterances and the pragmatic function of utterances produced during play with each modality were analyzed and compared.

**Results:**

The number of utterances was greater during play with toys (n=90) versus a hand-held electronic device (n=53). Additionally, the variety of pragmatic functions was greater during play with toys (n=90) versus the electronic device (n=53).

**Conclusion:**

Exposure to hand-held devices appears to limit the amount and variety of verbal communication attempts in comparison to non-electronic modalities during play. Manipulatives may promote greater and more varied use of verbal language and should be considered during treatment planning. Long-term implications of screen time on verbal communication in children with ASD should be explored.

**Poster Number 31**

*Applying Lean Methodology to Urine Pregnancy Testing at a Federally Qualified Health Center in the Bronx, New York*

Author: Levinia Melaram, ADN Student

Faculty Sponsor: Dr. Caroline Hewitt, DNS, RN, WHNP-BC, ANP-BC

**Project Purpose:**

To reduce inefficiencies and waste in urine pregnancy testing (UPT) at a Federally Qualified Health Center (FQHC) in the Bronx, New York.

**Background & Significance:**

Due to challenges like limited resources and budgets, it is important for FQHCs to eliminate waste to better allocate limited funds to care for underserved communities. With the increase in pregnancy test usage in the United States, the Lean methodology is a useful tool to apply to the UPT process at FQHCs.

**Community Assessment:**

The Bronx area of Belmont and East Tremont have a population of 65% Hispanic and 26% Black. It is the poorest neighborhood in New York City with 44% of the residents living below the federal poverty level.

**Agency Description:**

Community Healthcare Network (CHN) is a not-for-profit organization that consists of 13 FQHCs. The Tremont Health Center is a CHN site in the Bronx that receives a Title X family planning grant.

**Intervention:**

To provide an engaging educational program to inform the family planning staff (MAs and LPNs) on when UPTs are indicated versus not with a PowerPoint presentation based on CHN's Pregnancy Test Indications policy, the CDC Quality Family Planning Services (QFP), ACOG, and AAFP guidelines. The program will include both didactic content and case study scenarios.

**Evaluation Methods:**

Pre/post (post 1 month) test survey to evaluate the change in staff knowledge on UPT indications. Analyze aggregate data of UPT usage pre/post (post 3 months) intervention.

**Poster Number 32**

*Increasing New Nursing Faculty Through a Structured and Formal Mentorship Program.*

Authors:

Janice Molloy, ADN Student

Philip Nelan

**Issue:**

Many academic institutions are facing a faculty shortage which is especially true in a nursing department. This shortage places a burden on the department to fill vacant positions and at the same time maintain optimal student outcomes. New nursing faculty members are hired, often without guidance, lack of input from veteran nursing faculty, leading to anxiety, a lack of self-esteem which results in poor retention of new faculty.

**Description:**

This systematic search and I review of the research literature was conducted using CINAHL, Medline and the Cochrane Database. Keywords used include: retention, nursing faculty, anxiety, and shortage. Studies found comprised of a systematic review of four descriptive studies.

**Results:**

Key findings indicate that new faculty members often leave because of a lack of support, lack of guidance, and high levels of anxiety. Institutions which initiate a mentorship program have higher retention levels and stronger nursing faculty.

**Conclusions and recommendations:**

New faculty members who are supported by veteran faculty members through a mentorship programs, are more likely to remain in the academic setting than those who do not. Mentorship programs offer guidance, collegiality and assistance within the academic setting as well as within the department. Mentorship programs assist new faculty members the chance to improve confidence as a lecturer and in clinical settings, decreasing anxiety levels leading to higher self-esteem and ultimately, retention. Mentors can guide students in scholarship, service learning, and advancement.

**Poster Number 33**

*Applying VNeST in a Highly Inflectional Language: Value of Morphology in Treating Anomia*

Author: Gabriela Munoz, MS in Speech Language Pathology Student



Faculty Sponsor: Nancy Eng, PhD, CCC-SLP, TSHH (Professor, Speech-Language Pathology Program)

**Background:**

Anomia is the most prevalent symptom of aphasia (Edmonds & Babb, 2011; Edmonds, 2016). Noun-centered treatments are typically used to address word-finding deficits though recently, there has been great interest in taking advantage of the lexical network of verbs towards the same goal. If verb-centered approaches are promising, then it is imperative for clinicians to evaluate the promise of this approach in a morphologically rich language. Spanish is a highly inflectional language, which includes a complex verb morphology system.

**Aim:**

This is a single-case study to assess the influence of tense morphology and verb frequency on word retrieval in a Spanish speaker with aphasia using Verb Network Strengthening Treatment (VNeST).

**Method:**

A case study was documented with one Spanish-speaking individual with aphasia being treated with VNeST (Verb Network Strengthening Treatment) to target word retrieval. The Western Aphasia Battery (WAB) and Boston Naming Test (BNT) were used for pre- and post treatment measures of word retrieval.

**Results:**

High frequency verbs with high inflectional tenses have been shown to be most effective in word retrieval. Patient requires less cuing and time to retrieve words when presented with high inflectional tenses.

**Conclusion:**

Based on data collected with this participant, tense morphology and verb frequency has an effect on word retrieval.

**Poster Number 34**

*Eugenics during the Holocaust: The Data Dilemma*

Authors:

Rachel Nham (Undergraduate, Queensborough Community College Nursing Program)

Nicole Suric (Undergraduate, Queensborough Community College Nursing Program)

Faculty Sponsor: Susan Riekert (Assistant Professor, Queensborough Community College)

**Issue:**

Eugenics is the science or belief in controlling the genetic pool of the human population to eradicate traits that are deemed “unwanted” by society as a whole. During The Holocaust, eugenics was an extreme practice as the Nazi party ordered and implemented

a sterilization process to prevent non-Aryans from reproducing while still working as slave laborers. In the modern age, eugenics is being used to screen for genetic anomalies in children and sterilizing criminals. As a result, a dilemma arises: Is it appropriate for the modern medical field to use data from the eugenics process that occurred during the Holocaust for genetic screening in the modern world? If so, how does it benefit the modern medical field?

**Description:**

By participating in the Kupferberg Holocaust Center’s (KHC), “Complicity and Collaobration during the Holocaust” Project, we attended educational events at the KHC, interviewed Holocaust survivors and performed a literature review in search of these answers. The limited review of the research literature was conducted using CINAHL and Medline.

**Results:**

By the end of our research, we concluded that it was not appropriate for the modern medical field to take data from the experiments performed during The Holocaust.

**Conclusions and recommendations:**

Our research indicates that the practice of eugenics has been identified as assisting in the screening for certain diseases, however, it can be used for the wrong purposes as seen during The Holocaust. During the Holocaust, the “unwanted” groups were sterilized without their consent due to the belief that the Aryans were the superior race. This idea of eugenics was taken to an unethical level during The Holocaust. By the end of our research, we concluded that it was not appropriate for the modern medical field to take data from the experiments performed during The Holocaust.

**Poster Number 35**

*A Case Study: The Narrative Language Skills of a Preschool- Aged Child*

Author: Meghan O’Grady, M.Ed., MS-SLP Student

Faculty Sponsor: Michelle MacRoy- Higgins, Ph.D., CCC-SLP, TSHH

**Background:**

A child’s ability to retell a story during preschool years has been found to be the best predictor of literacy achievement in elementary school. Despite this fact, less research attention is given to the preschool- aged population as compared to school-aged children. The purpose of this study was to examine the influence of varying degrees of caregiver support on a preschool child’s narrative language skills.

**Methods:**

One typically developing, 3 year 6 month year old male produced narrative samples under the following conditions: no support (control), verbal reminiscing, visual support, and simultaneous verbal reminiscing and visual support. Two narratives were collected over four, 30-minute sessions in the participant’s home; thus eight narratives were

collected in total. Narratives were scored on a four-point scale for topic maintenance, event sequencing, informativeness, referencing, conjunctive cohesion and fluency.

**Results:**

Scores ranged from 13 to 22. The highest score was obtained when given simultaneous visual support and verbal reminiscing (average score: 21), as well as when provided verbal reminiscing in isolation (average score: 21).

**Conclusions and Recommendations:**

These findings support the recommendation to parents of typically developing children to engage in frequent verbal reminiscing to support narrative language development. Future studies could examine the impact of verbal reminiscing and visual support on the narrative productions of children with language delays or impairments.

**Poster Number 36**

*Education Methodology for Night Shift Nurses*

Author: Kalliopi Parginos

Faculty Sponsor: Christine Cutugno, PhD, RN, NEA-BC

**Significance and Background:**

The specific learning needs of night shift nurses have not been adequately researched. Many night nurses tend to be newer and less experienced which may lead to increased stress and more clinical errors. Traditional education methods are not always effective for all nurses and the same educational opportunities for day nurses are not always available for the night shift nurses.

**Evaluation/Methods:**

A systematic literature search was performed with a critical appraisal of the evidence. The development of a PICOT question facilitated a more defined search strategy. Various key search terms contributed to the findings of a query of twenty five articles, 14 were critically appraised and 6 were synthesized to appraise quality.

**Outcomes:**

There is a variety of available learning methods corresponding on night nurses' preferences that can be utilized on the night shift, including online modules, face to face interaction, simulation and blended-learning which can increase night nurses' learning and satisfaction.

**Implications:**

It is recommended that CNSs and NPDS will collaborate on establishing the most effective learning strategies and teaching methods for night nurses in order to engage them on an active learning method based on their learning preferences. It is essential the implementation of a variety of education methods to accommodate the learning

preferences such as face to face education, computer based learning, blended learning, simulation and other methods. The result could not only enhance night nurses' learning but also increase patient safety.

### **Poster Number 37**

*The Use of Hepatitis C Innovation Team Dashboard in Improving Hepatitis C Screening Rates vs. Standard Electronic Clinical Reminder in U.S. Veteran population born in the years 1945-1965 at the Department of Veterans Affairs New York Campus*

Author: Helen Rostata Pesola, MSN, RN, ANP-BC, CCRN, DNP Student

Faculty Sponsor: Lynda Olender, PhD, RN, ANP, NEA-BC, Distinguished Nurse Lecturer

#### **Purpose:**

To improve the Hepatitis C virus (HCV) screening rates by 5% from baseline using the Hepatitis C Innovation Team (HIT) Dashboard and provision of Hepatitis C educational training sessions to the Providers in the Primary Care Clinics over a 12-week period.

#### **Background and Significance:**

An estimated 2.7-3.9 million people in the United States have chronic Hepatitis C Virus (HCV).

HCV infection is the leading cause of complications from chronic liver disease and the most common indication for liver transplants among U.S. adults. The CDC recommends a one-time screening for HCV infection regardless of risk factors for all adults born between 1945-1965. About 75% of people living with Hepatitis C virus in the U.S. belong to this birth cohort. It is estimated that only 20% of HCV infected patients are screened and less than 10% are treated. New medications for HCV have greater than 95% cure rate and are better tolerated compared to previous treatment.

#### **Community Assessment:**

The baseline HCV screening rate at the Veterans Affairs Manhattan Campus Primary Care Clinics over a three-month period (July-Sept.2017) was 79%.

#### **Methods:**

Quality Improvement project in increasing Hepatitis C virus screening among Baby Boomers at the Department of Veterans Affairs Manhattan Primary Care Clinics using the before-and-after study design.

#### **Intervention:**

Assessing the benefit of the utilization of the Hepatitis C Innovation Team Dashboard to enable real time clinical information at a glance and provide clinicians with feedback of current performance, compared to the standard electronic clinical reminder prompt. Educational training will also be provided to all primary care practitioners in the clinics.

#### **Evaluation:**

Pre-Post Intervention Measurements that compare results pertaining to usual practice and the use of the HIT Dashboard and related education.

**Poster Number 38**

*The Effects of Adjuvant Non-Pharmacologic Interventions on Patient Pain Scores and the Utilization of Pain Medications*

Author: Mary Lou Reidy, DNP student

Faculty Sponsor: Dr. Lynda Olender, PhD, RN, ANP, NEA-BC, Distinguished Nurse Lecturer

**Project Purpose:**

To assess the efficacy of non-pharmacologic interventions in addition to medications for pain management as compared to the use of medications alone.

**Background / Significance:**

Pain management has become a national health concern due to the current opioid addiction epidemic. Studies lend support to the idea that the use of non-pharmacological interventions to treat pain are efficacious and well tolerated (Blackburn, Abel, Green, Johnson & Panda, 2018; Delgado, et al., 2014; Nehil, Bonieau, Khalsa & Stussman, 2016). In the hospital setting, although many effective non-pharmacologic pain management interventions are available, they are grossly underused and post-discharge hospital surveys indicate that patients are dissatisfied with their pain control and attention to their personal preferences.

**Methods:**

The project is designed as a randomized controlled experimental study to compare the usual care (pain medication treatment) group with the intervention (pain medication and patient-preferred non-pharmacological pain treatment) group of 100 patients within a 525-bed acute care tertiary hospital in Queens, NY. Non-pharmacologic pain therapies include holistic care, pastoral guidance, art and music activities, and animal-assisted therapy.

**Evaluation:**

Daily pain scores, the amount of pain medications and the provision of alternate pain control measures will be compared for each group.

**Poster Number 39**

*Reducing Psychiatric Inpatient Length of Stay by Enhancing Acceptance for Community Placement via Improved Preparation for Housing Interview*

Author: Rochelle Kepes, MS, RN, PMHNP-BC, DNP student  
Community Mentor: Mary Barber, MD

Faculty Sponsor: Dr. Lynda Olender, PhD, RN, ANP, NEA-BC

**Project Purpose:**

The purpose of this project is to enhance community placement and reduce inpatient length of stay (LOS) via the use of *Preparation for Discharge Questions (PDQ)*.

**Background & Significance:**

Studies looked at trends in reducing psychiatric inpatient length of stay to enhance patient quality of life, and reduce budgetary strain on the organization. There is a gap in the literature as to how to accomplish this.

**Community Assessment:**

Inpatients within a state psychiatric center, experience repeated community placement rejections from residence interviews and remain in the hospital longer than required, contributing to diminished patients' right to self determination.

**Intervention:**

The treatment team reviews structured PDQ with patients at scheduled intervals, coinciding with treatment plan due dates, supported by Peplau's Interpersonal Relations Theory, which emphasizes the importance of utilizing education and interpersonal skills.

**Evaluation Methods:**

Inpatient LOS will be <180 days in 90% of new admissions within 6 months. Initial baseline LOS data will be compared to six months follow up data after PDQ tool protocol is implemented.

**Conclusions:**

The utilization of PDQ may serve as a model for all discharge-ready psychiatric patients by increasing the likelihood of being accepted at the residence, and subsequent reduction of inpatient length of stay.

**Poster Number 40**

*Does access to prenatal care for pregnant teenagers improve health outcomes?*

Authors:

Antonio Albert

Selina Chin

Jamila Abdur-Ranim

Katie Kim

Kelcey Hazell

Merovee Kahouo

Vorinica Sunijbhan

Shaunalee Williams

Faculty Sponsor: Barbara Rome

**Issue:**

The United States is the leading nation in birth rates for adolescent girls in developed countries. New York City rates of teenage pregnancies is consistent with the nations with

the highest rates being in the poorest neighborhoods. There is an increased incidence of adverse birth outcomes for adolescent mothers in comparison to adult women. Ability to access much needed care can be a significant factor in determining the outcome of childbirth with the lack of access resulting in negative health outcomes. Some such as preterm births and increased admissions to the NICU. Not only will the access to care effect these factors, the model of care that is implemented may also play a significant role in birth outcome.

**Description:**

Centers for Disease Control and Prevention website, NYC.Gov website, CINAHL Complete and Proquest were used to search the literature using the terms prevalence, teen pregnancy, and adverse health outcomes.

**Results:**

Services are available for teenagers to access such as the Pregnancy Assistance Fund (PAF). It is a \$25 million grant that funds states so that they can provide needed services such as education, parenting skills and most importantly health care to pregnant teens. Another service that is offered is Text 4 Baby. This free, convenient service allows teen moms and those expecting to sign up to receive text messages for free on subjects such as prenatal care, parenting and baby health. Lastly, some programs that are offered by the Department of Health of New York are the Growing Up Healthy Hotline and the Perinatal Regionalization Program. The Growing Up Healthy Hotline provides information and referrals about pregnancy care services, nutrition, health care and family planning to pregnant teens and women. It operates 24 hours a day, 7 days a week. The Perinatal Regionalization Program guarantees there are hospitals in a geographic region that provide pregnant moms and babies with a range of services that allow pregnant moms to stay healthy during pregnancy, have uncomplicated births and healthy babies.

**Conclusions and recommendations:**

The introduction of the Medicaid program in the 1980s have resulted in improved maternal child health outcomes if initiation of care is done early in pregnancy. When teenagers have access to prenatal care nurses are better able to educate the young mother about good nutrition, exercise, screening for factors that increase risk of complications, and mental health screening. This care contributes to better health outcomes for both mother and baby and empowers teenagers to better care for themselves and their babies.

**Poster Number 41**

*The Relationship Between the Choking Risk Assessment/Pneumonia Risk Assessment and Penetration/Aspiration Events in Nursing Home Residents/Sub-Acute Rehabilitation Center Patients*

Authors:

Alexa Rubilotta, B.S. (Graduate Student),  
Avinash Mishra, Ph.D., CCC-SLP

Faculty Sponsor: Avinash Mishra, Ph.D., CCC-SLP

**Background:**

Disordered swallowing (dysphagia) is a life-threatening medical condition that can result from a variety of diseases. There is a need to determine which clinical assessments are most correlated with swallow safety outcomes. As such, the present investigation aimed to examine the degree to which two clinical assessments used to identify individuals as high-risk of experiencing dysphagia related symptoms, the Choking Risk Assessment (CRA) and Pneumonia Risk Assessment (PRA), correlate with results obtained from formal instrumentation, the Fiberoptic Endoscopic Evaluation of Swallowing.

**Methods:**

All data were obtained from a skilled nursing home/sub-acute rehabilitation center. Participants included 20 individuals, F=10 and M=10, ages 42-93 (mean=67.5) with varying diagnoses. Data were obtained via clinical interview and chart review from a speech-language pathology graduate student and licensed/certified speech-language pathologists over a 4-month period.

**Results:**

Though not statistically significant, a small, negative correlation, between CRA scores and PAS scores ( $r_s = -.165$ ,  $p = .487$ ) was revealed. Additionally, a moderate, positive correlation between PRA scores and PAS scores ( $r_s = .310$ ,  $p = .183$ ) was identified.

**Conclusions:**

The results from the current study do not provide sufficient evidence to support a significant relationship between CRA and PAS scores, and thus between coughing/choking and instances of penetration. However, the moderate positive correlation observed between PRA and PAS scores points to a trend between being identified as high risk for developing pneumonia and experiencing aspiration-related events. Future research in this area is required in order to improve the quality of care for patients affected by dysphagia.

**Poster Number 42**

*Relationship of Kinesiophobia to Admission Characteristics and Discharge Outcomes for Patients with Hip Fracture and Total Hip Arthroplasty.*

**Authors:**

Janet Herbold, PT, MPH, PhD (Burke Rehabilitation Center)  
Suzanne Babyar, PT, PhD (Faculty Sponsor, Physical Therapy)  
Mary Carmody (Graduate, Physical Therapy)  
Nneka Mowatt (Graduate, Physical Therapy)  
Atara Polinsky (Graduate, Physical Therapy)  
Carly Sadowsky (Graduate, Physical Therapy)

Faculty Sponsor: Suzanne Babyar, PT, PhD (Physical Therapy)

**Background:**

Kinesiophobia, the fear of movement and/or reinjury, has been studied in relation to patient outcomes in various populations including chronic pain, total knee replacements,



fibromyalgia, and ACL reconstruction. Few studies have been conducted for post-operative hip fixation or replacement despite the increased prevalence of hip surgery in the United States. The purpose of this study was to determine the prevalence of kinesiophobia in patients following hip replacement or hip fracture surgery, and analyze the relationships between kinesiophobia and admission characteristics and discharge outcomes.

**Methods:**

Subjects (n = 110) admitted to an inpatient rehabilitation following unilateral total hip arthroplasty (THA), bilateral THA, or hip fracture surgery completed the Tampa Scale for Kinesiophobia (TSK), Functional Independence Measure (FIM) and Timed- Up and Go Test. Admission characteristics (age, weight, gender, diagnosis) and discharge outcomes (LOS, pain, ambulation device, range of motion) were collected from the electronic medical records. Descriptive statistics and linear regression were generated, *post-hoc* tests were independent *t*-tests.

**Results:**

Sixty (54.5%) subjects reported kinesiophobia (score of 35 or greater on the TSK). TSK scores did not correlate with admission or discharge variables. However, subjects in the hip fracture group with kinesiophobia only improved hip flexion range of motion by 17.2° (SD = 22.4) versus subjects without kinesiophobia who improved by 29.7° (SD = 15.2).

**Conclusion:**

Kinesiophobia is an emerging psychosocial variable that should be considered as an influential factor for patients status post hip fracture or replacement surgery throughout rehabilitation.

**Acknowledgements:** This research was completed with Burke Rehabilitation Center in White Plains, NY.

**Poster Number 43**

*A Literature Review of Contributing Factors to The Opioid Epidemic*

Authors:

Kidd Myles, UG Nursing Student  
Anakarina Ramos, UG Nursing Student  
Samaria Vazquez, UG Nursing Student

Faculty Advisor: Janet Rice Franzese, RN, PMHCNS, PMHNP

**Issue:**

Since the introduction of opioids in the late 1990's, not only have we seen an increase in prescription rates, but also in the deadly consequences directly related to the misuse of opioids. Although initially thought to be harmless, the abuse and addiction of opioids continues to be on the rise at an alarming rate. In 2015 there were over 33,000 deaths in

the United states due to opioid overdoses. This literature review explores the following question: What are the different factors contributing to this current major health issue in America?

**Description:**

A literature search in CINAHL and Medline was conducted to find studies and articles related to the opioid crisis. Literature focused on analyses of causative factors were chosen. Studies included systematic reviews, voluntary participants surveys, secondary data analyses, and descriptive studies. Keywords included: opioid, opiates, addiction, abuse, misuse, and prescription.

**Results:**

Findings indicate that several factors have contributed to the opioids epidemic. Key factors include: lack of education, lack of treatment programs, inadequate guidelines for prescribing, diversion, and pharmaceutical company influence.

**Conclusions and recommendations:**

When used properly, opioids are safe and effective drugs; because of this, the idea that these medications can also be harmful and addictive can be difficult for the public to understand. The widespread diversion and misuse of these medications have led to the massive opioid overdose epidemic. Recommendations for addressing the problem include proper education, screening tools, psychological tools, safe medication management and frequent patient assessment.

**Poster Number 44**

*Executive Function Skills and Social Communication Skills in an individual with High Functioning Autism Spectrum Disorder*

Author: Tiffany Santiago, MS Speech-Language Pathology

Faculty Sponsor: Michelle MacRoy-Higgins

**Background:**

There is some evidence that deficits in executive functioning skills may negatively impact social communication in individuals with High Functioning Autism Spectrum Disorder (HFASD) (e.g., Bauminger & Kasari, 2000; White & Keonig, 2007; Rao et al., 2008). However, limited research has examined this relationship among adolescents with HFASD. The purpose of this study was to examine the performance on executive function tasks and social communication skills in an adolescent with HFASD.

**Methods:**

A thirteen-year-old bilingual male (English – Chinese) with HFASD was assessed in the five domains of executive function (i.e., *planning, mental flexibility, inhibition, generativity* and *self-monitoring*) over one session. Social communication skills were assessed through formal and informal measures using the *Comprehensive Assessment of*

*Spoken Language-2 (CASL-2)* and the *Pragmatic Protocol (PP)*, adapted from Prutting & Kirchner (1987) across two sessions.

**Results:**

The participant with HFASD demonstrated weakness in the domains of *planning*, *mental flexibility* and *self-monitoring*. The executive function domains of *inhibition* and *generativity* appeared intact. Formal assessment of social communication skills using the CASL-2 revealed abilities in the typical range. However, informal assessment using the PP revealed atypical verbal behaviors, paralinguistic behaviors and non-verbal behaviors.

**Conclusions:**

The atypical social communication skills that were observed during informal assessment may be the result of deficits in *planning*, *mental flexibility* and *self-monitoring*.

**Poster Number 45**

*NACNS Heating Things Up*

Author: Patricia Sarov Lacy, Adult-Geriatric Clinical Nurse Specialist MSN

Faculty Sponsor: Dr. Christine Cutugno & Dr. Elsie Jolade

**Issue:**

Malignant hyperthermia (MH) is a life threatening medical condition caused by inhalation anesthetics. An intraoperative clinical nurse specialist must ensure that the multidisciplinary team is competent in treating this critical rare event.

**Description:**

Literature review using CINAHL, Google Scholar, and Medline with search terms including: simulation, manikin, learning, education nursing, education medicine, and health care professional. MH experts from AORN, UpToDate, and MHAUS were consulted. A multidisciplinary education program was developed. It included a pre and post-test to test MH knowledge, lecture on MH, followed by a multidisciplinary MH simulation after the in-service.

**Lessons Learned:**

Simulation learning is more effective in retention of skill and knowledge than lecture style learning. Memory is retained best within a month of subject overview. Baseline knowledge on MH was higher than expected. Surgical technicians received the most benefit. There was large standard deviation of improvement for the ST from pretest to post test. After simulation, the range of knowledge scores improved to a small standard deviation (SD=5) compared to baseline (SD=13)

The program was shown to have a small to medium effect on both nurses and surgical technicians when comparing pretest and post-test data.

**Next Steps:**

Continue to sustain baseline knowledge of an MH crisis. Annual competencies should include simulation training to prepare OR staff for an MH crisis.

### **Poster Number 46**

*Relational Coordination Between Primary Care and Mental Health Services:  
Reduced Emergency Department Utilization by Mental Health Patients for Perceived Medical  
Emergencies*

Author: Mary Schaeffer, PMHNP-BC, DNP Student

#### **Purpose:**

To test whether using a standardized system of communication between Mental Health with Primary Care providers decreases the association with Emergency Room (ER) use by Mental Health patients with perceived medical emergencies for medical problems and improves the satisfaction of providers.

#### **Background:**

Primary Care (PC) and Mental Health (MH) providers at the Brooklyn Veterans Administration Medical Center (VAMC) lack a formal process for coordination between MH and PC providers, thus leading to increased use of emergency services, often unnecessarily, and at greater cost, to address medical care needs.

#### **Theoretical Framework:**

Gittel's Theory of Relational Coordination underpins the study since it focuses on the specifics of interactions that provide the foundation for coordinating work. The theory states that relational coordination, in contrast with coordination in general, addresses how relationships in the healthcare system are managed in order to provide optimal care of the patient.

#### **Methods:**

A two-group pretest-posttest design will be used to evaluate current coordination compared with post-intervention communication between Primary Care (PC) and Mental Health (MH) providers at the Brooklyn VAMC. Inclusion criteria: MH and PC providers treating patients with both chronic metabolic disorders including hypertension, diabetes, and hyperlipidemia, as well as at least one active *Diagnostic and Statistical Manual V* diagnosis. Data will be collected on MH patients who use the ER for medical reasons during the six months leading up to the intervention, to determine the reasons for ER use, and the disposition of the patients after ER assessment. After 6 months, the number of ER visits for the patients will be calculated and compared.

#### **Results:**

Before and after results will be assessed for statistical significance of changes. It is anticipated that ER visits will likely reduce unnecessary ER visits for MH patients, as well as improve satisfaction of providers with the relational coordination between providers from PC and MH.

**Conclusions and Implications:**

The hope is that the proposed quality improvement project will enhance coordination, relationships, and collaboration between PC and MH. The goal of the project will be to reduce unnecessary ER visits for MH patients, as well as improve satisfaction of providers with the relational coordination between PC and MH.

**Poster Number 47**

*Patterns of EBP Utilization in SLP: A Survey Study of Clinical Educators*

Author: Tamar Schulman (Graduate Student, Hunter College Department of Speech Language Pathology)

Faculty Sponsor: Donald Vogel, AuD, CCC-A, SLP

**Background:**

Evidence-based practice (EBP) delineates effective treatment outcomes. The literature suggests that speech-language pathologists (SLPs) and related healthcare professionals rely on the various avenues such as input of peers, experiences during graduate school, and early clinical experiences for treatment decisions. There are also identified barriers to effectively using EBP. The current study investigates what patterns currently exist regarding EBP utilization among SLP clinical educators.

**Methods:**

A survey design was used to gather information about EBP use. Participants were recruited through ASHA's Special Interest Group (SIG) 10 in Higher Education, where an 18 item questionnaire could be submitted anonymously.

**Findings:**

The most common motivation for implementing EBP is a desire to perform best practice. However, even though participants reported an increased frequency of EBP engagement, there exist common barriers such as time constraints and lack of access to adequate resources. Additionally, there were indicators that work environments tend to offer designated time for EBP. The most commonly utilized resources for treatment planning include online databases and other online sources.

**Conclusion:**

The field of SLP has been successful in utilizing EBP among clinical educators in higher education. In order to continue to encourage EBP use among the larger SLP community, its support should be emulated in all professional SLP settings with the necessary emphases by those in higher education.

**Poster Number 48**

*Are senior nursing students competent in the assessment and management of intimate partner violence (IPV)?*

Authors:  
Shannon Kearney  
Marion Yuga  
Chris Caserma

Faculty Sponsor: Barbara Rome

**Background:**

Intimate partner violence is a global health problem that affects people regardless of their age, gender, ethnicity, socioeconomic status or geographic location (CDC, 2017). The types of abuse inflicted can range from emotional, physical, financial, and sexual - in combination or by themselves. IPV can have devastating short and long-term consequences. Nurses are required to screen for IPV during each encounter with a patient and are in a unique position to identify and intervene Walton & Moss, (2002). Review of the literature shows that graduating nursing students lack confidence in assessing and managing victims of IPV. The aim of this study is to examine whether graduating nursing students are competent to assess for and manage patients who have experienced IPV.

**Research Question:**

Are senior nursing students competent in the assessment and management of intimate partner violence (IPV)?

**Methods:**

This study utilized a quasi-experimental design. Senior nursing students at an associate and bachelors program completed the computerized Graduating Student Nurse Readiness to Manage Intimate Partner Violence Survey.

**Results and Conclusion:** Data analysis in progress

**Poster Number 49**

*The Effects of Touchscreen Media on Language Development of Children Under 3 Years of Age*

Authors:  
Faygie Slotkin (Student in MS in Speech-Language Pathology)  
Aviva Lerman

Faculty Sponsor: Aviva Lerman

**Issue:**

In recent years, ownership and widespread use of handheld touchscreen devices has increased exponentially. This increase in use occurs across all ages, even in children under 3 years. With this rise in use of handheld touchscreen devices among such young children, many researchers have investigated whether increase in exposure to touchscreen media is to the benefit or detriment of language development in young children.

**Description:**

The present study is a literature review that investigates how type of media, level of social support, and age of child alter the effects that media on tablets has on the language development of the infants and children who utilize them. The goal of this literature review is to understand which combination of factors creates the optimal conditions for a child to learn from a handheld touchscreen device. Furthermore, under what circumstances, if any, will handheld touchscreen media provide enough benefits to outweigh the risks?

**Results:**

The results of this literature review have highlighted the difficulty that young minds experience when transferring information from two dimensional sources into the real world. Furthermore, social interaction from a parent or adult aids in a child's ability to learn from these devices. Finally, the age of the child using the devices is a key component of how readily learning will take place; 3-year-olds learn more than younger children.

**Conclusions and recommendations:**

As is consistent with earlier findings, this literature review underscores that parents should limit the use of touchscreen devices for children under 3 years of age.

**Poster Number 50**

*Patient Perceived Outcomes Following a Yoga Class in an Inpatient Rehabilitation Unit*

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Faculty Sponsor: Nicki Silberman, PT, Ph. D, DPT

**Background:**

Patients in inpatient rehabilitation unit (IRU) may suffer from stress and pain, which may impact satisfaction with their rehabilitation stay. Yoga has been shown to induce relaxation and breathing awareness and alleviate pain in the general population and may provide a way to cope, altering perceived satisfaction with the rehabilitation stay. However, the effects in an inpatient rehabilitation setting have not been sufficiently explored. The purpose of this study was to better understand the effects of a single interactive group yoga session on self-reported changes in levels of relaxation, breathing awareness, pain, and patient satisfaction in an IRU.

**Methods:**

A Quasi Experimental Pre-test Post-test design was used to study the effects of a single group yoga session on breath awareness, relaxation, pain, and patient satisfaction for patients receiving inpatient rehabilitation. Subjects who consented to participate in the study completed a survey before and after the group yoga session. A Likert scale was used to measure breathing awareness and patient satisfaction, and a numerical scale was used to measure pain and relaxation.

**Results:**

Results showed improvement in pain and relaxation using a Wilcoxon Signed Rank Test and changes in breathing awareness with descriptive statistics. Most participants reported a decrease in stress (87.5%) and a decrease in pain (60.4%). There was an increase in participants' breathing awareness from pre yoga to post. In addition, participants reported the yoga session improved their overall experience in rehab.

**Conclusion:**

A single yoga session can increase patient perceived relaxation, pain, and breathing awareness and enhance the patient's overall rehabilitation experience.

**Poster Number 51**

*First-time and expecting mothers' knowledge and beliefs regarding early communication development*

**Authors:**

Jenna Stefanowski, Graduate, SLP  
Aviva Lerman

**Background:**

This study investigates first-time and expecting mothers' knowledge about typical communication development within the first year of life and what strategies they use to encourage speech and language development. This study also investigated where first-time mothers get their information from about early communication development.

**Methods:**

47 women from New York, who were either pregnant for the first time or had only one child (0 – 12 months), participated in this study. No participants had a background in child development (i.e., speech-language pathologists, early childhood educators, etc.). Online questionnaires were administered by word-of-mouth and "mommy forums" to gather quantitative and qualitative data.

**Results:**

Most participants (73.9%) used the internet as a source for information regarding parenting. Other sources included health professionals (71.7%), friends (65.2%), and parents (63.0%). 69.2% received no information regarding strategies to encourage early communication in infants from a health professional. Even so, 97.7% understood the



importance of communicating with infants. Identifying normal linguistic development was varied, ranging from 32% correctly able to identify infants' intentional pointing, to 61.7% who could correctly identify the first consonant sounds produced by infants.

**Conclusions:**

Expecting and first-time mothers are often lacking accurate knowledge about early communication milestones, but believe in the importance of encouraging communication development. Health professionals are one of the most commonly used sources of information regarding parenting, and should provide this information to new mothers. With more information, mothers can better shape and monitor their infants' communication development and get professional help, if they notice delays in development.

**Poster Number 52**

*An Alternative to the Indwelling Foley Catheter in Incontinent Female Patients*

**Authors:**

Christine Tran, BA, BSN, RN, OCN®

Debra Rodrigue, MA, RN-BC, AOCNS®

Faculty Sponsor: Elsie Jolade, DNP, EdM, FNP-BC, ACNS, APRN, CCRN

**Issue:**

Catheter-Associated Urinary Tract Infections (CAUTIs) are the most common type of healthcare-associated infections, leading to longer hospital stays and decreased quality of life. Decreasing the number of indwelling catheters placed for “convenience” in incontinent patients can decrease CAUTI rates. Incontinent females need an effective external urine collection device in order to decrease indwelling urinary catheter usage, decrease CAUTI and increase patient satisfaction.

**Description:**

A quality improvement project examining PureWick® External Catheter was piloted on two inpatient units for one month at Memorial Sloan Kettering Cancer Center. A cost-benefit analysis was completed to identify potential cost-savings.

**Lessons learned:**

PureWick® was piloted with 12 patients and provided an effective way to collect and measure urine in incontinent females. Findings show an increase in comfort, effective urine collection, absence of skin breakdown and overall satisfaction during the one month pilot. 100% of eligible patients were satisfied and output was able to be tracked on all patients. Nurses reported no skin breakdown related to device, 93% felt device was easy to use and 85% were satisfied with product. 3 indwelling catheters were avoided during the pilot, saving a potential of \$994.20 per patient.

**Next steps:**

External catheters such as PureWick® should be considered for incontinent females instead of indwelling catheters.

**Poster Number 53**

*Breaking Down Barriers to Vaccination Compliance Using Informatics: A Literature Review.*

**Authors:**

Valencia-Hernandez, Astrid

Zhouhua Chen

Someck, Sharon

Xie, Yu

Yin, Rachel

Zielinski, Oksana

Faculty Sponsor: Philip Nelan & Georgina Colalillo

**Issue:**

Vaccination remains one of the most effective ways to control and prevent disease thereby reducing morbidity and mortality in populations. Despite these benefits, a lack of awareness and concerns for vaccine safety and effectiveness has caused suboptimal vaccine coverage rates especially against pneumococcal disease, influenza, hepatitis B, tetanus and diphtheria/pertussis and human papilloma virus. Barriers to routine immunizations in children include: delayed doses, incomplete series and lack of parental understanding of vulnerability. Adult vaccination coverage rates remain low even among high risk individuals due to lack of information, low priority for both provider and patient, cost, incomplete records and reliance on accuracy of patient self-report. Implementing an electronic immunization information system to remove systemic and operational barriers may improve vaccine compliance.

**Description:**

A limited literature search between 2013-2018 was done to explore barriers and facilitators of vaccine compliance and role of vaccine reporting information systems. The databases of PubMed, CINAHL and ProQuest were used. Keywords included vaccines, decision-making, compliance, barriers and facilitators. The research consisted of systematic reviews, state-wide survey of healthcare providers and parents and data from public health reports.

**Results:**

The Citywide Immunization Registry (CIR), implemented in NYC, has improved under and over vaccination rates, exchange of immunization information with electronic health records, cut costs, increased vaccine accountability and directs scarce resources to target populations. Educating the public about the benefits of immunizations through promotional programs, one on one teaching, and vaccination stewardship is essential.

**Conclusions and recommendations:**

The electronic immunization system allows sharing of immunization information with health care providers, families and agencies concerned with public health and enables for improvement of immunization status of NYC residents. Health care providers acknowledging the fears and reluctance associated with vaccinations, providing education and participating in effective communication can result in an increase in compliance of vaccinations.

### **Poster Number 54**

#### *Language Maintenance Through Use of a Personal Micro-Lexicon in an Individual with Logopenic Primary Progressive Aphasia*

Author: Corrine Valenti (Graduate Student, Hunter College Department of Speech Language Pathology/Audiology)

Faculty Sponsor: Donald Vogel, AuD, CCC-A, SLP

#### **Background:**

Primary progressive aphasia (PPA) is a degenerative disorder caused by brain atrophy to the language areas that affects an individual's speaking, understanding, reading and/or writing abilities. This study investigates the effectiveness of implementing constrain and maintain therapy through the use of a personal micro-lexicon stored on a smartphone. The technique is drilled through the lexical retrieval cascade, thus attempting to preserve language.

#### **Methods:**

A single subject case study of an 82 year-old female diagnosed with logopenic PPA is presented to demonstrate the positive outcomes of intervention.

#### **Results:**

The participant retained all personally relevant trained stimuli via an assistive technology (AT) database. Her language abilities, as assessed with the *Boston Diagnostic Aphasia Examination (BDAE)*, remained stable throughout the course of treatment.

#### **Conclusions:**

Treatment focusing on constraining and maintaining a lexicon is a promising approach in facilitating the use of individualized core vocabulary within a functional setting for patients with PPA. Overall quality of life is enhanced as AT stores and categorizes vocabulary resulting in access to meaningful vocabulary and an increase in meaningful interactions, socialization, and sharing of opinions/preferences.

## **Poster Number 55**

*Palliation: How to Teach Patients & Family Members.*

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### **Introduction:**

Advanced heart failure can't be cured, but it does not mean you have run out of treatment options. The growing selection of therapies and state-of-the-art technologies for advanced heart failure has made decision making more challenging. Most patients and family members don't know difference between hospice and palliative care. Nurses need to provide knowledge regarding the contribution of palliative care, and educate patients with advanced heart failure and their family members. Research shows that palliation has provided many patients with an increased life span compared to surgery complications or the comorbidity that may arise along their recovery period. Through palliation, the health care team can help all patients live as well as possible for as long as possible.

### **Methods:**

Through peer reviewed articles and further research on evidence based practice, we have found supporting evidence that palliative care can provide patients with comfort care and coping strategies to continue living at optimal level. In addition, educating patients on the meaning of palliation can help open peoples mind and consider its benefits.

### **Results:**

Current research has shown that the incorporation of palliative care to patients with heart failure improves the quality of symptoms, quality of care and reduces psychological stress. Studies show that the incorporation of palliative care for patients with heart failure does increase the quality of life. Although, the studies that have been done are said not to be 100% accurate due to the lack of control of the care given to a control group which in turn provide false conclusions. Also, the research shows that it is hard to keep an ill patient involved in a study trial do to the discomfort, or due to the inability to follow up. Therefore, it is imperative that future studies be done in a more controlled setting to help conclude a more accurate investigation.

### **Conclusion:**

There are many treatment options available for end stage heart complications. Many patients experience heart failure are unaware of palliation as an option. Family members of patients experiencing these complications are unaware of what palliation entails and the comfort it brings through all its benefits.

## **Poster Number 56**

### *The Effect of Thermal and Non-Thermal Skin Prepping on Motor Threshold Responses During Neuromuscular Electrical Stimulation*

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#### **Background:**

Patient apprehension and stimulation tolerance are two limitations to effective neuromuscular electrical stimulation (NMES) treatment as current increases. Incorporating skin pre-stimulation techniques to improve NMES delivery and tolerance may maximize treatment outcomes and minimize patient discomfort. The purpose was to compare threshold current amplitudes necessary to create minimal visible twitch and sustained tetanic contractions of the wrist extensor muscles in subjects who received different skin preparation treatments prior to NMES application.

#### **Methods:**

Twenty subjects between the ages of 21-44 who met the inclusion criteria received three rounds of NMES treatment, each time receiving a different skin pre-treatment (control, alcohol wipe, and cryotherapy). Testing was conducted on the forearm wrist extensors. The required current amplitude to create an initial twitch and sustained tetanic contraction for wrist extension for each condition were recorded.

#### **Results:**

The results indicate that neither the alcohol wipe nor the cryotherapy skin pre-treatment significantly reduced the amount of current necessary to produce both outcomes. However, the post-hoc analysis revealed a significant difference in alcohol vs control in creation of a tetanic reaction.

#### **Conclusions:**

Results of the study suggest that pre-treatments may possibly decrease amplitude required to produce a tetanic contraction when compared to the control. Clinicians should consider using alcohol pre-treatment in patients that are apprehensive or have low tolerance for e-stim in order to decrease amplitude required to achieve desired results.

## **Poster Number 57**

Title: *Acquisition of Early Words in English Versus American Sign Language*

Authors:

Ashley Weinstein, MS – Speech-Language Pathology Student

Avinash Mishra, Ph.D., CCC-SLP

Faculty Sponsor: Avinash Mishra, Ph.D., CCC-SLP

### **Background:**

Literature regarding the acquisition of signed versus spoken language is constantly emerging. While both language modalities develop along similar timelines, infants who use American Sign Language (ASL) produce first words earlier than their English-speaking counterparts. This investigation aimed to compare and contrast the first 35 acquired words in English versus ASL in order to determine if language acquisition is linguistically driven, motorically driven, or a combination of both.

### **Methods:**

The first 35 words acquired in English and ASL were compared. English words were obtained from The MacArthur-Bates Communicative Development Inventory, while the ASL list was obtained from ASL-CDI. The two lists were evaluated along defined categories (lexical, iconicity of signs, place and manner) to determine similarities and differences.

### **Results:**

English and ASL word lists were largely similar, however, notable differences emerged. The English list contained no verbs, while the ASL list contained nine. The ASL list did not contain onomatopoeia or exclamations (e.g. “uh oh”), which were identified in the English list. Finally, the English list was primarily comprised of words with early-emerging initial sounds, while the ASL list was not constrained by articulation.

### **Conclusions:**

Our findings suggest that spoken English and ASL are, in part, driven by linguistics. However, the use of verbs in ASL and the production of words with early emerging initial sounds in English indicate that articulation/motoric abilities may contribute to early language production. This information is clinically pertinent, and additional research is warranted to assess long-term implications of language acquisition and production patterns.

## **Poster Number 58**

*The Influences of Phonemic and Syllabic Strategies on Late Talkers' Ability to Expand their Lexicons*

Authors:

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Faculty Sponsor: Michelle Macroy-Higgins, PhD CCC-SLP, TSHH

### **Background:**

The nature of vocabulary acquisition in toddlers who are late talkers (LT) is not fully understood; there is evidence of both delayed and disordered vocabulary acquisition. This study compared the vocabularies of LT toddlers with those of younger, vocabulary-matched (VM), typically-developing peers by examining the phonological influences in both groups' lexical networks.

### **Methods:**

Twenty-eight toddlers participated in this study; fourteen were identified as LT and fourteen were VM controls. The Words and Gestures or Words and Sentences form of *The MacArthur-Bates Communicative Development Inventories, Second Edition (CDI-2)* was completed by the caregivers of all participants to determine each toddler's expressive lexicon. For each participant, the number of phonological connections, defined by words with the same initial phoneme and types of syllable shapes (e.g., CV, CVC, CVCV, etc.), were noted. Oddball words, words without phonological connection to other lexical items in the network, were summed.

### **Results:**

Analyses suggest that toddlers who are LT use strategies when building their lexicons, including using initial phoneme and syllable shape inventories, similar to their VM typically-developing peers. There were no significant differences found between the two groups in phonological or syllable measures. Phoneme and syllable characteristics were correlated in the LT group, but in the VM group, the number of phonemes were not correlated with the number of phoneme connections or syllable connections.

### **Conclusion:**

Toddlers who are LT use phonological strategies to build their lexicons, similar to their VM typically-developing peers.

## **Poster Number 59**

*Effects of Fatigue on Balance in Persons with Parkinson's Disease*

Authors:

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**Objective:**

Over 50% of patients with Parkinson's Disease (PD) report fatigue, a factor implicated in falls and balance loss in neurologically-involved populations. However, no study has examined the effects of fatigue on balance in persons with PD. The purpose of the study is to examine the effects of fatigue on balance in ambulatory persons with PD. We hypothesize that increased fatigue will decrease balance in this population. Methods: 16 subjects with PD participated in a randomized crossover study. Participants completed the protocol twice; once in fatigued and once in non-fatigued conditions. Fatigue was induced via the six-minute walk test (6MWT) and measured using the Visual Analogue Scale of Fatigue (VASF). Balance was measured using the Mini-BESTest (MBT). Distance walked during the 6MWT and minute-per-minute changes were noted. The non-fatigue group performed a six-minute rest. Wilcoxon signed-rank tests were used to analyze differences between fatigue and non-fatigue conditions for the mini-BESTest and VAS-F. Results: Sixteen subjects completed the study. For the fatigued group, a significant decrease in the MBT was found after the 6MWT ( $p=0.039$ ) when compared to the pre-test. A significant difference was found in the fatigued condition for VASF intervals 3-1 ( $p=0.000$ ), 3-2 ( $p=0.000$ ), 4-1 ( $p=0.001$ ), and 4-2 ( $p=0.000$ ). The non-fatigued group also demonstrated significance at VASF intervals 2-1 ( $p=0.041$ ), 4-1 ( $p=0.035$ ), and 4-3 ( $p=0.005$ ). Conclusion: The data suggests that increased fatigue reduces balance in ambulatory patients with PD, and therefore decreased mobility in this population may be in part due to changes in levels of fatigue. Keywords: Parkinson's disease, fatigue, balance, mini-BESTest, six-minute walk test

**Poster Number 60**

*Improving Oncology Handoffs with Standardized Elements*

Authors:

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**Issue:**

The handoff is not standardized and is susceptible to error. Work hour restrictions for medical residents, along with rising utilization of nurse practitioners (NPs) and physician assistants (PAs) on inpatient services leads inevitably to an increase in the number of



handoffs over a 24-hour period and potential for preventable medical errors and adverse events.

**Description:**

In recognition of the unique challenges inherent to our patient population we identified several oncology-specific key elements (in addition to those used in the I-PASS trial) for inclusion in a standardized handoff and created a new electronic tool that, in conjunction with educational efforts, lead to a significant improvement in our handoff process. I-PASS acronym stands for **I** (Illness Severity), **P** (Patient Summary), **A** (Action List), **S** (Situation awareness and contingency planning), **S** (Synthesis by receiver). These oncology specific key elements include oxygen requirement (including FiO<sub>2</sub>% and delivery device), pain regimen, transfusion goals, absolute neutrophil count (ANC), last blood cultures (time and date), and access (including presence of a central line if existent).

**Lessons Learned:**

- Significant improvement remained since intervention charts included every key element, but this was a significant increase from 0% of charts pre-intervention (p<0.001).
- Compliance improved substantially; 100% of pre-intervention handoffs were missing at least 25% of the key data elements, this dropped to only 2% of post-intervention handoff documents (p<0.001).
- Surveys indicated increased satisfaction with the new handoff tool:
  - 34.2% (13/37) of clinicians surveyed spent >10 minutes prior to the intervention updating the handoff daily. This decreased to 17.6% (3/17) of clinicians surveyed after the intervention.
  - 44.7% of clinicians surveyed could update the handoff in 6 minutes or less prior to our intervention, this number increased to 64.7% (11/17) after the new handoff tool was implemented.

**Next Steps:**

Further studies will be performed to assess Report to Improve Safety and Quality (RISQ) reports to assess 4 months pre/post new handoffs to identify the effects of the new handoffs on adverse events/medication errors.

**Poster Number 61**

Validating Concurrent Validity for the 20 Foot Walk Test in Vestibular Dysfunction Patients

Authors:

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**Hypothesis:**

The timed 20-foot walk test would be valid in comparison to the gold standard, the timed 50-foot walk test; and that a moderate relationship exist between timed 20-foot walk test and other subjective and objective measures, that measure impairments in function and balance.

**Background:**

Standard tests which include walking speed using the timed 50-foot walk test are valid for patients experiencing vestibular and balance dysfunction, but are often cumbersome to perform in a busy clinical environment. Using the timed 20-foot walk test, clinicians could objectively calculate walking speed in an efficient manner and use this test to measure treatment progress.

**Methods:**

Subjects were outpatients referred with dizziness or imbalance, who gave informed consent. Routine testing included the following: completion of the Dizziness Handicap Index (DHI), Activity-Specific Balance Confidence Scale (ABC), the timed 50-foot walk test, the timed 20-foot walk test, Global Rate Of Change (GROC) and Functional Gait Assessment (FGA). Results: The timed 20-foot walk test showed good concurrent validity with the timed 50-foot walk test and convergent validity with the FGA. However, DHI and ABC did not show consistency with the timed 20-foot walk test. This implies a difference in the convergent validity between the subjective and objective tools.

**Conclusion:**

Clinical implications of our study showed that the timed 20-foot walk test has concurrent validity with the timed 50-foot walk test as well as convergent validity with objective measures. Thereby, clinically increasing the efficiency in which Physical Therapists can conduct objective speed outcome testing on vestibular patients.

**Poster Number 62**

*A Study of the Use of Psychopharmacologic Agents by Acutely Medically Ill Older Adults*

**Authors:**

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**Background:**

Chronic medical problems and mental health issues often coexist in later life, and many older adults routinely take medications for both. This becomes a potential problem when older adults have to be admitted to the hospital for an acute medical illness. There are many unanswered questions regarding continuing the psychiatric medications older adults were taking at home when they are admitted to the hospital for an acute medical

problem. This retrospective study sought to investigate issues related to the safety of psychopharmacological agents used by acutely medically ill hospitalized older adults. It explored if there were any associations between commonly prescribed psychiatric medications that medically ill hospitalized older adults received and adverse events. It also sought to compare the safety of antidepressants, sedative/hypnotics and antipsychotics, when used as a standing and as needed (PRN) basis.

**Methodology:**

This retrospective study utilized a computer algorithm employed by the hospital's IT department to capture older adults (age 65 to 85) who received at least one of 12 commonly used psychopharmacologic agents while hospitalized for an acute medical problem on two medical/ surgical units in a 408-bed community hospital in the Northeastern United States during the first eight months of 2014 (N = 271). Patients over the age of 85 were excluded from the study to limit the number of patients with dementia and frailty. An Excel™ spreadsheet file provided by the IT department included the patients' medical record numbers, date of birth, date of admission and discharge, as well as the psychopharmacological that was used to identify the chart and the name of prescriber of the psychiatric medication.

**Results:**

The study found that psychopharmacological agents are frequently prescribed for medically ill hospitalized older adults. No statistically significant difference was found on safety. The number of PRN medications that were used, and the total number of medications was associated with increased risk of transfer within the hospital to a higher level of care or transfer upon discharge to long-term-care/rehabilitation or hospice. Overall, the use of psychopharmacological agents did not appear to be related to serious adverse events.

**Conclusions:**

The use of multiple PRN medications and psychopharmacology is associated with increased risk of adverse events in the hospital and the need to transfer the patient to an after-care facility or hospice service.

**Funding:**

PSC-CUNY Award # 68324-00 46 Title: A study of the safety and efficacy of psychopharmacologic agents used by acutely medically ill older adults. (4/15/15)

### **Poster Number 63**

#### *Nonverbal Communication During Play with Hand-Held Electronic Devices versus Toy Manipulatives in Children with Autism Spectrum Disorder*

##### **Authors:**

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Faculty Sponsor: Avinash Mishra, Ph.D., CCC-SLP

##### **Background:**

Literature has indicated that increased accessibility to electronic devices and greater exposure to screen time may be detrimental to expressive and receptive language development, social engagement, and academic success in typically developing children. Increased exposure to electronic devices is believed to adversely affect nonverbal communicative behaviors in children with Autism Spectrum Disorder (ASD), as these children are lacking or delayed in social and linguistic skills.

##### **Methods:**

A 6-year-old male diagnosed with ASD was seen across three sessions. During session one, the Expressive One Word Picture Vocabulary Test (*EOWPVT-4*) was administered to the child and a parent questionnaire was completed. During sessions two and three, the child was observed during play with iPad applications and play with toy manipulatives. Thirteen nonverbal communication domains were assessed, and a comparison of total nonverbal communicative behaviors between the two modes of play was conducted.

##### **Results:**

Nonverbal communicative behaviors were greater during play with toy manipulatives in 10 out of the 13 domains. Nonverbal communication was observed more frequently during play with toy manipulatives (n=93) versus play with a hand-held electronic device (n=42).

##### **Conclusions:**

Exposure to hand-held devices appears to limit nonverbal attempts at communication in immediate comparison to use of non-electronic modalities during play. Nonverbal communication in children with ASD may be enhanced through interactions with manipulatives and should be considered during therapeutic management. Long-term implications of screen time on nonverbal communication behaviors in children with ASD should be explored.

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