DOCTOR OF NURSING PRACTICE
SCHOLARLY PROJECTS ~ 2011

VANDERBILT UNIVERSITY
School of Nursing
FOREWARD

Congratulations to the 2011 DNP graduates! Your scholarly projects reflect the synthesis of your academic experiences and emerging roles as practice leaders and scholars. You have attained the competencies necessary to respond to the changing health care system – to improve health care and advance the nursing profession.

Colleen Conway-Welch, PhD, CNM, FAAN
Nancy and Hilliard Travis Professor of Nursing
Dean, Vanderbilt University School of Nursing
FROM THE DIRECTOR

“Nurses should be full partners with physicians and other health care professionals in redesigning health care in the United States” (IOM, *Future of Nursing*, 2010). Indeed, the scholarly projects of the 2011 Doctor of Nursing Practice graduates reflect efforts to ensure the delivery of safe, patient-centered health care in the shape of quality improvement initiatives, practice innovations, clinical practice guidelines…These DNP graduates will lead change within complex health care settings across diverse populations. The impact they will make has yet to be seen!

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Preparing the Nurse Manager for Evidence-Based Nursing Practice

Purpose
The purpose of this scholarly project was to design an evidence-based educational program for nurse managers to provide them with the knowledge and skills to support the utilization of evidence-based nursing practice (EBNP) by nurses at the bedside.

Methodology
Data were collected from the nurse managers and assistant nurse managers at a children’s hospital within an academic medical center. The survey instrument was adapted from an instrument used to assess the staff nurses’ knowledge of EBNP in 2008 and 2010. The intent of the survey was to assess the nurse managers’ use of evidence in their management practice; their value in utilizing the evidence in their management practice; their perception of barriers in using the evidence; and their professional characteristics.

Results
The nurse managers and assistant nurse managers who participated in the survey reported value in evidence-based practice (EBP) and a willingness to apply it to their practice. Time to read the evidence is a significant barrier for the managers (55.5%). The strong agreement among respondents in the value of EBP and the reported use of the evidence for practice was contradictory in the assessment of the resources used by the respondents. Based on the nurse managers’ survey results, the following gaps were revealed: potential knowledge deficit in understanding the concept of evidence-based nursing practice, inability to conduct an effective literature search, and lack of ability to read and analyze research articles.

Implications for Practice
The role of the nurse manager in facilitating EBNP at the bedside is an important link to quality outcome measures. The investment of an educational strategy to prepare the manager with the knowledge and skills to implement EBNP and the skills to facilitate change will drive the utilization of best practice at the bedside.
Evaluation of Patient and Clinician-Rated Measures for Quality Improvement of CMHC Practice

**Purpose**
The IOM recommends that mental healthcare providers increase their use of valid and reliable measures of outcomes of care to continuously improve the quality of care. Time burden is the most often cited reason for not using measures in routine practice. The objective of this QI pilot project was to evaluate time burden and feasibility of use of standardized patient and clinician rated measures in a CMHC setting of adult patients.

**Methodology**
The patients completed the GAD-7 and PHQ-9; and the clinician completed the MADRS and HAM-A at each visit over 2 months. Patients (n=22) were timed to measure administration time of the patient measures. The clinician was timed to determine time taken to complete each set of measures beyond the scheduled patient appointment time.

**Results**
Mean time for the self-administration of patient scales was 3 minutes (range 1-6 minutes). In only 10 of 32 instances did the clinician need time beyond the scheduled appointment to complete the measures. Mean additional clinician time required was 1.8 minutes (range 0.8-2.5 minutes).

**Implications for Practice**
Participants were willing and easily able to routinely complete self-report measures of symptom severity either prior or during appointments. There was minimal time burden to integrate outcome measures into the appointment by the clinician. This project provides evidence that refutes the “time burden” argument against implementation of routine measures use for either patient or clinician.

Kelly W. Bliss, MSN, ARNP, PHMNP-BC
Psychiatric Mental Health Nurse Practitioner
Comparing Outcomes in Patients with Type 2 Diabetes Who Received Formal DSMT to Patients Who Did Not Receive Formal DSMT

**Purpose**
The purpose of this project was to compare outcome data from a group of patients who participated in diabetes self management training (DSMT) at an American Diabetes Association accredited education recognition program with a group who did not participate in DSMT.

**Data Sources**
Data (hemoglobin A₁C, LDL and SBP) were collected from a group of patients (n=24) pre and post DSMT. The same data were collected from a group of patients (n=23) receiving usual care. The groups were compared independent t-test statistical analysis.

**Conclusions**
The group receiving DSMT had a higher mean reduction in A₁C (1.74 vs 0.69). However, there was no significant difference between groups due in part to the small sample size. There was no significant difference for LDL or SBP.

**Implications for Practice**
The results suggest that patients participating in DSMT may be more likely to reduce their A₁C than those who do not participate.

Lisa Brooks, MSN, BSN, APRN-BC, BC-ADM
Acute Care Nurse Practitioner
Comprehensive Literature Review of Emotional Freedom Techniques for Post Traumatic Stress Disorder and Associated Symptoms

**Purpose**
The purpose of this comprehensive literature review was to determine whether or not Emotional Freedom Technique, an “energy psychology” therapy using self-tapping on selected acupuncture points combined with a cognitive intervention, has adequate evidence of efficacy and safety to support its use in the treatment of those suffering from Post Traumatic Stress Disorder and related syndromes.

**Methodology**
Major medical, psychological, and alternative/complementary databases as well as EFT and Energy psychology websites were searched using selected key words to find pertinent English language studies using human subjects over 17 years of age where EFT was used as a modality to treat PTSD or its associated symptoms of anxiety and/or depression. Selected studies were organized according to hierarchy of evidence, summarized in table format, then analyzed and discussed.

**Results**
Only eight studies met search criteria and only three were randomized control trials. The combined number of subjects studied was only 694 and only three of the studies specifically used subjects suffering from PTSD. In spite of these and other limitations of the selected studies, EFT appeared in each study to help improve PTSD and/or related symptoms and the improvement in symptoms was sustained over time.

**Implications for Practice**
PTSD, an all too common response to combat exposure, is challenging our mental health resources as the US remains engaged in two wars over multiple years. There are inadequate numbers of providers and facilities to offer our affected veterans standard treatments, which are time consuming, costly, often ineffective, and frequently involve pharmaceuticals with serious potential side effects. EFT, an easily learned and taught technique which is then self-administered, has the potential, if proven effective, to address this problem. Though evidence supporting EFT for this purpose is hardly conclusive, there is enough supportive data to warrant ongoing research and perhaps using EFT as an adjunct to other standard treatments. APNs can play an active role conducting this research, teaching the technique to other professionals, and directly helping PTSD sufferers.

Sandra L. Brooks, MN, RN, PMHCNS-BC
Psychiatric-Mental Health CNS
Timeliness and Accuracy of Diagnosis for Veterans Presenting with Signs of Lung Cancer Within the Tennessee Valley Healthcare System

**Purpose**

The purpose of this project was the evaluation of timeliness to care as well as the impact of accuracy of diagnosis with regard to the timeliness for veterans within the Tennessee Valley Healthcare System (TVHS) presenting with signs of lung cancer. Clinical practice guidelines stipulate that the time from radiographic abnormality to definitive therapy should be 30 days or less. This project evaluated the current practice outcomes within TVHS.

**Methodology**

A retrospective chart review was completed of all cases presenting for evaluation from January 1, 2007 through December 31, 2009 for signs of lung cancer. Cases were identified through clinic enrollment lists as well as through comprehensive lists from the Tumor Registry with TVHS. Inclusion criteria: any veteran receiving care within TVHS system with new presentation of signs of lung cancer. Exclusion criteria: metastatic disease and not receiving all aspects of care within the TVHS system. Out of 834 cases identified, 600 were randomly selected for review. One hundred ninety-two out of these 600 met inclusion criteria. The 192 cases were reviewed for time in days between care intervals from the time an abnormal radiograph was completed to the time definitive therapy was initiated. Each case also had a probability of malignancy score calculated based on the initial computed tomography (CT) scan.

**Results**

Three primary time intervals were calculated: 1) time from abnormality to diagnosis noted a median 34.5 days (IQR-12-61.5), 2) time from diagnosis to definitive therapy noted a median 49.5 (IQR-23-111); and 3) overall time noted a median 85 days (IQR-65-174). The correlation between time to care and the probability of malignancy score was calculated using Spearman correlation. A correlation was found between the probability score and time to care only for the interval from abnormal radiograph to diagnosis noting Spearman’s Rho -0.453 and p value < 0.001.

**Implications for Practice**

TVHS is currently outside the clinical practice guidelines for timely care for veterans with signs of lung cancer. The variability in the range of cases indicates that the issues with timely care are widespread and not attributed to an isolated area of delay. Interprofessional collaboration will be necessary to identify and address the causes for delays to care. Using the probability of malignancy score could be useful in determining the most at risk patients and thus need expedited care in order to be in line with the published guidelines for care.
Diagnosis and Treatment of Community Acquired Pneumonia: Development of a Protocol

Purpose
The purpose of this project was to create an evidence based protocol for nurse practitioners to utilize when providing care to geriatric patients suspected of having community acquired pneumonia (CAP), within the home setting.

Methodology
A review of evidence based practices for diagnosing and treating CAP was performed. A needs assessment revealed inconsistent practices for diagnosing and treating CAP among providers. An evidence based protocol was developed to rate severity of pneumonia and aid in determining the best treatment setting.

Results
Implementation of the protocol in one practice revealed cost savings to Medicare compared with treatment in the hospital setting, improved patient/caregiver satisfaction, a return to baseline functional status more frequently, and more rapid with treatment in the home setting.

Implications for Practice
This protocol can be used by nurse practitioners caring for geriatric patients within the home setting. The protocol can be used to facilitate diagnosis, rate severity, plan follow-up, and preventative care for CAP.
Development of a Discharge Planning Process

**Purpose**
The purpose of this project was to develop evidence-based clinical practice guidelines to enhance communication across all disciplines and improve the discharge planning process in an inpatient cardiology unit.

**Methodology**
The scholarly inquiry involved retrospective electronic chart reviews and development of practice guidelines utilizing the Stetler Model of Research Utilization. The process involved: 1) validation, 2) comparative evaluation and decision making, and 3) translation/application by a multidisciplinary team who developed the clinical practice guideline. The team consisted of case managers, cardiology staff nurse, cardiology clerical associate, physical therapist, occupational therapist, and cardiology allied health professional.

**Results**
Consensus evidence-based clinical practice guidelines for the discharge planning process were developed. These guidelines included the purpose, indicators and procedures for each healthcare provider, a communication flowchart, discharge checklist, and discharge planning policy.

**Implications for Practice**
Evidence in the literature and in clinical practice clearly supported the need for a standardized discharge planning process. Untimely discharges have a huge impact on hospital admissions, patient throughput and hospital revenue. Effective discharge planning results in fewer readmissions, higher patient satisfaction scores, decreased length of stays, and reduces admissions times. By incorporating best practice guidelines, improving communication and better coordination of discharge planning, the facility will be able avert many readmissions and avoid lost revenue. The practice guideline is significant to the physicians to assist them in communicating the anticipated discharge date to the patient and/or family as well as the nurse. The anticipated discharge date is the main contributing factor to all discharges. Communicating the anticipated discharge date to the patient, nurse and case manager will allow time for the formulation of an efficient and effective discharge plan and avert readmissions. Keeping the lines of communication open between all disciplines from admission to discharge could prevent untimely discharges. Clinical practice guidelines will assist the healthcare team to create a safe and efficient discharge planning process.
Provider’s Knowledge, Attitudes and Beliefs Regarding Adult Immunizations

**Purpose**
The purpose of this study was to examine health care providers’ knowledge, attitudes and beliefs about adult immunizations.

**Methodology**
An email survey was submitted to nurse practitioners and physicians assistants employed by a retail health company. A total of 119 surveys were returned; 114 were nurse practitioners and 5 were physician assistants.

**Results**
The results showed 100% of the respondents felt adult vaccinations were beneficial; 92% were up to date on their own vaccinations; 98% felt comfortable with the CDC’s recommendations about adult immunizations, and 97% felt comfortable making recommendations to patients. The majority of providers felt the vaccines were useful and prevented serious diseases.

Additionally, the majority of providers were able to independently list 6 or more of the recommended 10 adult vaccines.

**Implications for Practice**
This study shows the nurse practitioners and physician assistants employed by one retail health organization are supportive and knowledgeable about adult vaccinations. It is hoped from the results of this study that health care providers’ attitudes are becoming more positive towards adult immunizations and as a result, more adults will be educated on their vaccination needs.

Amy Julia Culbertson, MSN, FNP-BC
Family Nurse Practitioner
Prescription Drug Abuse Prevention: An Analysis of Controlled Substance Consent Forms/Agreements

Purpose
The purpose of this project was to study controlled substance consent forms from pain clinics/centers from randomly selected areas of the country and perform a content analysis of each form. The emerging themes and subthemes were then compared to various recommended component parts of controlled substance agreements as found in the literature.

Methodology
Fifteen controlled substance agreements from five different types of clinic settings were collected from various locations in the US between September 2010 and November 2010 and a content analysis was conducted. Once themes and subthemes were identified, these were then compared to the recommended component parts of such agreements as documented in the literature.

Results
Nine global concept themes, some with sub-concept themes, were identified with variation in content and format in the controlled substance agreements. None of the samples contained every concept. When compared to recommended component parts in the literature, there was considerable variability between agreements, and there was a consistent group of core concepts found.

Implications for Practice
The findings of this study can assist clinical sites in the development or revision of controlled substance consent forms. Such forms are created to ensure patient safety, increase communication, and effect quality outcomes of care.
A National Survey Investigating Intraoperative Anesthesia Handoff Practices and Recommendations for Standardization

**Purpose**
The purpose of this project was to (1) identify current practice protocols for intraoperative anesthesia handoff among nurse anesthetists, (2) determine the perceived frequency of near-miss events related to inadequate communication, and (3) to identify specific information to be included in a standardized approach to intraoperative anesthesia handoff.

**Methodology**
A national survey was distributed to a randomly generated sample of 7,300 nurse anesthetists provided by the American Association of Nurse Anesthetists (AANA). A total of 2384 nurse anesthetists completed the survey, resulting in a 32% response rate.

**Results**
Forty-seven percent of respondents reported handoff training in a nurse anesthesia program or practice setting, although only 2% reported the utilization of a standardized form. Support for national guidelines was reported, as only 16% of participants either disagreed or strongly disagreed with the development of guidelines for standardization of intraoperative anesthesia handoff. Respondents reported a 17% frequency of adverse or nonroutine events following handoff. Seventy-six percent of causes of nonroutine events were categorized as omissions in information and related to: medical history (31%); operative course (29%); postoperative plan (20%); and omitted or inaccurate information regarding availability of responsible attending or team members (20%). Participants offered recommendations for essential information to be included in a standardized process of intraoperative anesthesia handoff.

**Implications for Practice**
Results demonstrate minimal adherence to the Joint Commission (TJC) Patient Safety Goal requiring a standardized approach to intraoperative anesthesia handoff. The national support for standardization and recommendations from respondents will be issued to the Practice Council of the American Association of Nurse Anesthetists. Employment of a standardized approach to handoff not only conforms to TJC requirements, but will improve patient safety and reduce nonroutine and adverse events.
Evaluating Patients With Mild Cognitive Impairment: An Evidence-Based Protocol

**Purpose**
The purpose of this project was to develop an evidence-based protocol for evaluating mild cognitive impairment in the primary care setting.

**Methodology**
This scholarly inquiry involved a thorough literature review of practices related to evaluating mild cognitive impairment as distinct from Alzheimer’s dementia and other cognitive disease processes. Evidence revealed fragmented data, gaps in practice and blending the evaluation of mild cognitive impairment with other forms of cognitive impairment.

**Results**
The evidence was reviewed and synthesized to develop a protocol algorithm for the evaluation of mild cognitive impairment. This protocol guides the primary care nurse practitioner through a series of steps to identify potential reversible underlying conditions, and cognitive assessment tests specifically designed to differentiate mild cognitive impairment for other cognitive disease processes.

**Implications for Practice**
Moving to the future, patients with cognitive changes will commonly present in the primary care setting. Through the use of screening protocols, nurse practitioners identify the reversible causes earlier, more accurately, and more rapidly, thereby improving patient outcomes. Referrals for additional services are made earlier as well. This may lead to a decrease in the progression of cognitive impairment. The protocol affords nurse practitioners the opportunity to potentially impact the quality of life for the patient with mild cognitive impairment and decrease overall healthcare costs by allowing them to continue their independence.
Evaluation of Selected Components of a Comprehensive Care Model in Pediatric Primary Care

**Purpose**
The purpose of this scholarly project was to evaluate selected components of the Comprehensive Care Model which targeted a specific group of 200 children and youth with special health care needs (CYSHCN) in a pediatric academic medical center primary care clinic. The model involved care coordination for CYSHCN by a nurse case manager.

**Methodology**
The Logic Model and the NICHQ Care Model for child health in a medical home provided the framework for data collection. The Care Coordination Measurement Tool (CCMT) was used to gather data regarding billing and case manager activities. A retrospective chart review was conducted for evaluation of clinical indicators and the data were pulled from an electronic data warehouse.

**Results**
Comparing time periods of October, November, December, and January for 2009 to 2010 and 2010 to 2011, the results were:

- ED and inpatient charges and visits decreased;
- inpatient LOS increased;
- primary care clinic visits decreased and specialty clinic visits increased;
- and no-show rates increased for both primary care and specialty clinics.

It was determined that three months of billing collections, when annualized, will not pay for a full case manager FTE.

**Implications for Practice**
The initial results are inconclusive, yet promising, when evaluating the clinical and financial outcomes of CYSHCN within a Comprehensive Care Model. If improved outcomes are realized over time by continued evaluation of the Comprehensive Care Model, they will be consistent with the national interest in innovative quality care models targeting at-risk populations while controlling costs.
Pediatric Obesity and its Effects on Asthma Control

**Purpose**
The purpose of the scholarly inquiry was to explore if being overweight or obese influenced asthma control in pediatric patients ages 7 – 18 years with persistent asthma seen in asthma specialty office.

**Methodology**
A retrospective chart analysis was utilized. Children ages 7 – 18 years with a diagnosis of asthma who were seen within the practice from December 1, 2009 to May 31, 2010 were identified from the electronic health record system. The children were divided into the following three groups based on body mass index (BMI) to evaluate the differences in asthma control: normal weight (BMI < 85%), overweight (BMI ≥ 85% < 95%), and obese (BMI ≥ 95%).

The following four variables were evaluated to assess control of the child’s asthma: the number of controller asthma medications prescribed; the number of systemic corticosteroids prescribed in one year for asthma exacerbations; forced expiratory volume in one second (FEV₁) percentage of predicted; and forced expiratory volume in one second/forced vital capacity ratio (FEV₁/FVC) percentage of predicted. Chi square and Analysis of Variance (ANOVA) were utilized to analyze the relationships.

**Results**
Health records of 433 children (140 normal weight, 131 overweight, and 162 obese) were analyzed. The mean age of the child in the inquiry was 11.19 ± 3.13 years. No statistically significant difference was found between the three weight groups for the number of controller medications prescribed, number of systemic corticosteroids in one year, or FEV₁/FVC. A statistically significant difference was found for FEV₁%, F(2,430) = 5.51, p = 0.004, $\eta^2$ = 0.025. Overweight children had the highest mean FEV₁%, 92.47 % ± 16.74. Normal weight children had the lowest, 86.96 % ±13.22.

**Implications for Practice**
Previous evidence exploring the effect of obesity on pediatric asthma control has been limited and often incongruent. In clinical practice, obese children often report more asthma symptoms. However, this inquiry did not show an objective decline in asthma control associated with overweight or obesity.
Nurse Practitioner Practice Patterns for Management of Heart Failure in Long-term Care Facilities

Purpose
The purpose of this scholarly project was to identify and describe nurse practitioners’ (NP) practice patterns for heart failure (HF) management in regard to use of angiotensin converting enzyme inhibitors (ACEI), beta antagonists, use of diuretic monotherapy, and echocardiograms for older adults residing in long-term care facilities (geriatric residents). A secondary objective was to identify nurse practitioners’ perceived barriers to evidence-based HF management in the long-term care setting.

Methodology
A web-based survey was developed and distributed by the Gerontological Advanced Practice Nurses Association members (n=1338) to identify NP practice patterns for heart failure management in the long-term care setting. An expert consensus panel was assembled with two nationally recognized physicians and two nationally recognized NPs in geriatrics and geriatric cardiology which provided instrument and face validity for the clinical component of the survey. The Checklist for Reporting Results of Internet E-Surveys (CHERIES) and expert published opinion guided survey design.

Results
The majority of the 146 NP respondents appropriately used ACEIs for ongoing therapy and would initiate appropriate therapy for a symptomatic patient. Further, the majority of NPs would appropriately continue beta antagonist therapy in a patient with heart failure, denied prescribing diuretics as monotherapy, and appropriately utilized echocardiograms in the diagnosis and evaluation of heart failure. No obvious perceived internal or external barriers to practicing evidence-based practice were noted upon data review.

Implications for Practice
Evidence from this project provides new knowledge about nurse practitioner practice patterns in the long-term care setting. These data support the efficacy of nurse practitioners’ heart failure management in the long-term care setting.

Candace C. Harrington, MSN,ANP/ GNP-BC, ANP-C
Adult/Gerontological Nurse Practitioner
Purpose
The purpose of this project was to collect information on specific characteristics in a sample of multiple sclerosis (MS) patients that had not previously been collected.

Methodology
A retrospective chart review was completed on 66 randomly selected multiple sclerosis patients from an Alaskan NP's general neurology practice. Descriptive statistics were used to better understand the characteristics in this group including age at onset of MS, number of years the individual had MS, race, Alaskan birth state and level of disability. The characteristics from the Alaskan sample were compared to research results on MS patients in the contiguous U.S., Canada and Finland.

Results
There were 50 (75.70%) Caucasian females, the largest group, in this sample. The male to female ratio was 1:3 and was most consistent with Finnish MS registries. By race there was a predominance of Caucasians. There were 5 (7.5%) African-American women and no Alaskan Natives or Asian individuals in this sample. The largest group in this sample included individuals between 45 to 59 years of age. Characteristics for the entire sample included the mean for age at diagnosis of 36.39 years of age, the mean years of MS was 14.24 years and the mean EDSS was 4.40.

Implications for Practice
This was the first study of MS in residents of Alaska. The literature review preceding this project showed little information on individuals diagnosed with MS who lived in Alaska. Healthcare providers and researchers need to work together to complete studies that identify the contributing factors of MS. The predominance of individuals between the ages of 45-49 years of age might indicate a greater need for supportive health care and financial resources services for these individuals. Though this sample was small healthcare providers and researchers have a starting point for more accurate information on MS patients in Alaska.
Comparing Perceived Knowledge of Chronic Disease Management to Quantitative Knowledge Measurement in a Sample of Baccalaureate Nursing Students: Implications for Palliative Care Nursing Education

**Purpose**
To compare baccalaureate nursing students’ self-perceived knowledge with objective test knowledge in the management of chronic diseases and their associated symptoms.

**Methodology**
Two regionally distinct nursing programs participated in this project and represent the southeastern and the northeastern U.S. Senior baccalaureate nursing students in their last semester were targeted and represent the entry level of the professional nurse. Participants completed a self-rated knowledge survey and then completed a 45 item multiple choice objective knowledge examination on disease pathophysiology and symptom management.

**Results**
A weak correlation was found in the southeast cohort $r= +0.244$ (p=0.08) between self perceived knowledge and objective tested knowledge. The northeast cohort had a negative correlation $r= -0.183$ (p=0.29) between self perceived knowledge and the objective test measurement. There was no statistically significant difference in the objective testing between cohorts. In comparing the two overall objective examination scores the mean score for the southeast was 21.17 and the mean score for the northeast was 21.48. The differences between these two scores was not statistically significant (p >.05). Both cohorts scored a mean of less than 50% on the objective examination.

**Implications for Practice**
This project identified gaps in nursing knowledge as it relates to the integration of palliative care into the management of chronic disease and its associated symptoms. The findings can be used to support a paradigm shift in nursing education and help to evaluate curriculum content that can be used to educate baccalaureate nurses who will be caring for patients living with symptomatic chronic disease.
A Gap Analysis to Identity Knowledge Deficits about Women’s Health among VA Care Managers

**Purpose**
The purpose of this scholarly project was to provide an element of support for a transformative initiative in the VA healthcare system as it aligns new models of care to meet the needs of a changing patient population, especially the increase in numbers of women veterans entering the Department of Veterans Affairs (VA) system, and at younger ages than historically has been true. This alignment is related specifically to the Patient Centered Medical Home (PCMH) or Patient Align Care Team (PACT), which among other features will include a national clinical inventory of women’s healthcare delivery and ongoing provider and staff education for VA programs for women.

**Methodology**
A gap analysis tool was utilized with facilitated focus groups to identify knowledge gaps related to women’s health among system wide VA healthcare RN Care Managers. A set of questions was utilized (consisting of nine questions, item number 10 provided participants the opportunity to share comments regarding areas of concern related to the care of women veterans) and a protocol guide for focus group discussion was developed.

**Results**
Findings indicate the need for the development of system wide training/educational activities related to new Veterans Health Administration (VHA) Guidelines on healthcare for women, particularly as related to reproductive and urgent GYN care. Comments from focus group participants were varied, but revealed several themes with respect to their concerns related to the VA care. This is in the face of VA provider staff who are primarily very experienced VA providers, but with little or no experience providing service for women clients.

**Implications for Practice**
Effective deployment of VHA resources is a key responsibility of executive nursing. Nurse leaders must use evidence to determine the gaps in knowledge that exist and to formulate a rational plan to address identified gaps. There is a need for the development of system wide training/educational activities related to VHA Guidelines on healthcare for women veterans, particularly as related to reproductive and urgent GYN care.
The Application of the Toyota Production System Lean 5S Methodology in the Operating Room Setting

**Purpose**
The Toyota Production System (TPS) Lean 5S Project’s aim was to improve the efficiency and effectiveness of the delivery of patient care by eliminating distractions and interruption in a healthcare micro-system setting, the operating room.

**Methodology**
Quantitative data were analyzed from internet surveys, VPIMS (an operating room electronic database), and electronic safety reports along with limited qualitative data that was collected from focus groups. Focus group evaluations were verbal and informal occurring monthly for the first two months during the implementation phase of the Project followed by focus groups at three months and six month intervals. Comparative analysis, using a t-test, was conducted between the pre-survey and the post-survey data collected in each of the Value Compass domains: Functional and Satisfaction. Run charts were used to track improvements in the Value Compass Clinical and Cost domains.

**Results**
Due to the short implementation period of the TPS Lean 5S Project no conclusions can be made regarding the ultimate impact of the TPS Lean 5S Project. It can be stated that there is progress toward reduction in waste as showed by the statistical positive difference in Neurosurgery Operating Room Needs responses post TPS Lean 5S Project; the significant positive decrease in Neurosurgery Craniotomy infections; the positive downward trend of Neurosurgery Complications; a downward positive trend in the Neurosurgery Delays; the positive increase in the percent of First Case On-Time Starts; and the significant positive reduction in Neurosurgery Inventory Reduction.

**Implications for Practice**
The TPS Lean methodology could provide the tools to improve the workplace environment to reduce nurse turnover, lower cost, and improve health outcomes of patients. The application of the TPS Lean 5S methodology may add to the evidence of quality improvement science and allow the spread of successful waste reduction interventions to other healthcare micro-systems.
Identification of Perceived Barriers to Care to Air Force Nurses Seeking Treatment for Post-Traumatic Stress Disorder: A Pilot Study

**Purpose**
The purpose of this pilot study was to explore the barriers to Air Force Nurses seeking treatment for post-traumatic stress disorder (PTSD).

This cross-sectional pilot study explored the relationship between results from a PTSD screening tool (PCL-M) and barriers to seeking care in Air Force Nurses (AFNs) who have deployed to a war zone.

**Methodology**
Air Force Nurses who are current members of the Armed Forces District of AWHONN and who had been deployed to a war zone were invited to take the online survey. The AWHONN sent the survey out electronically to all of its AFD AWHONN members. The survey was sent out electronically through Survey Gizmo to all of the nurses (approximately 400) with a link to the survey.

**Results**
The data showed a definite relationship between the responses on the PCL (M) checklist and the barriers to care and identified the barriers to AF nurses seeking care for PTSD.

**Implications for Practice**
According to the National Center for PTSD, 12-20% of returning soldiers experience PTSD compared to 5% in the general population. There is a dearth of research regarding PTSD in medical personnel, specifically nurses. The identification of PTSD in AFNs and related barriers to seeking care could have a dramatic effect on improving the quality of life for AFNs and Air Force medical readiness.
Intrinsic Risk Factors for Falls in the Adult Inpatient Stroke Population

**Purpose**
To identify a set of variables or common, predominant risk factors that could possibly discriminate between fallers/non-fallers with multiple intrinsic risk factors that have a primary diagnosis of stroke according to ICD-9 codes.

**Methodology**
Existing databases were used to identify matched cases and controls of fallers and non-fallers with the primary diagnosis of stroke and similar lengths of stay. The sample was selected based on the inpatient location within an 18 month time frame and an assigned ICD-9 code indicating a stroke as the primary diagnosis. All fallers must have been reported in both the event reporting system and to the national Database of Nursing Quality Indicators (NDNQI). Comparisons were made based on age, gender, length of stay, exposure (time on the neurology unit), work shift when fall occurred, assigned risk status, and fall risk assessment criteria.

**Results**
A small sample size limited findings to descriptive statistics and inability to fulfill the project purpose. Findings revealed that 100% of subjects in the falls group and 88% in the control group were determined to be at “high risk”. Risk of “near fall” and “dizziness/vertigo” were only found in the falls group. Both fallers (75%) and non fallers (88%) experienced impaired mobility. Findings were consistent with the literature for length of stay, age, and impaired mobility.

**Implications for Practice**
Generic fall risk assessment tools/interventions limit accurate identification of potential fallers and may not contribute to improving outcomes. Moving to an electronic capture of select data on the fall risk assessment tool could save nurse time and improve accuracy of identifying patients at risk. The application of reliability science to future efforts could improve the accuracy of identifying fallers.

Susan Moseley, MSN, RN, NE-BC
Health Systems Management
Adherence to Clinical Practice Guidelines When Prescribing Second Generation Antipsychotics

**Purpose**
This project addressed quality of care to severely, mentally ill patients as defined by measuring adherence of medical providers to the American Psychiatric Association/American Diabetes Association second generation antipsychotic (SGA) consensus guidelines.

**Methodology**
Adherence to the monitoring guidelines when prescribing SGAs was studied through a retrospective electronic medical record (EMR) review at an urban community mental health center located in the southeast United States. The following variables were evaluated from fifty randomized records for patients admitted from October 2009 to October 2010: patient metabolic history, measurements of weight, height, body mass index, waist circumference, blood pressure, fasting plasma glucose and fasting lipid profile at SGA initiation, 12 weeks and one year. Weight and BMI measurements were evaluated at weeks 4, 12, 24, 36 and one year.

**Results**
Results indicated initial collection of FBG and FLP was 30%. The adherence rate for monitoring FBG and FLP from literature was reportedly at 26.9% for baseline glucose and 10% for baseline lipids. At the 3 month time point, 20% of FBG and FLP were checked and at one year 14%. The decline in adherence rate over time for monitoring was also seen as a similar trend for weight, height, BMI, and blood pressure data collection.

**Implications for Practice**
The project results provide direction for future improvement by reviewing the original Donabedian framework to look at the steps that may impede adherence to clinical practice guidelines for monitoring side effects of SGAs. Deficits in outcomes can be related to areas in structure or the process to be developed or enhanced such as adding templates and flagging of documentation to be entered through the EMR program. An integration of continued education of nursing staff, medical providers, patients and their families regarding the side effects of SGAs and importance of monitoring can improve adherence rates.
Barriers and Facilitators of All-Terrain Vehicle Education and Safety Training for Youth Under 16 Years of Age

**Purpose**
The aim of this project was to develop and implement a pilot version of a parent survey assessing barriers and facilitators of youths under 16 years of age attending the ASI ATV RiderCourse™ to determine why there has been such a low enrollment in this course.

**Methodology**
The socio-ecological model was used as a map for inquiry to understand community indicators and potential barriers to ATV safety training participation. The survey was distributed to a convenience sample of 180 parents of youth associated with the Tennessee 4-H Extension residing in nine targeted Central Region Tennessee Counties.

**Results**
Of the 40 surveys returned, 27 (60%) met criteria of having a child under 16 years of age who had been on an ATV in the past 12 months. Descriptive statistics was used to analyze the multiple choice and Likert scale questions.

Identified facilitators of course enrollment include: free cost (27%), child’s desire to take course (18%), concern for child’s safety (18%), belief child would learn something new (23%), parent requirement (5%), child previously wrecked an ATV (9%), belief ATV training reduces injuries (93%), belief ATV training is “not a waste of time” (96%), and trust in the Tennessee 4-H Extension (100%).

Identified barriers to course enrollment include: course location (22%), scheduling conflicts (22%), uncertainty of instructor’s certification (11%), lack of course awareness (50%), belief that child is an experienced driver (31%), incorrect size ATV to take course (6%), desire to teach own child how to operate an ATV (85%), large market for previously owned ATVs (50%), lack of ATV training information given at time of vehicle purchase (92%), and previous participation in a safety training course (13%).

**Implications for Practice**
It is essential that advanced practice nurses assess beliefs and attitudes about ATV education and safety training, offer resources for safety training opportunities and bridge injury prevention research into the clinical setting. If no one attends the class, the ASI RiderCourse™ is an ineffective solution in preventing ATV-associated injuries and deaths of children.
Patient and Provider Attributes Associated with COPD Exacerbations in Primary Care

**Purpose**
The purpose of this project was to identify patient and provider attributes that are associated with COPD exacerbations in primary care. If relationships between exacerbations and patient or provider attributes can be established, such information could be used to: a) develop interventions aimed at associated attributes; b) direct changes in practice patterns; and c) develop therapeutic interventions for COPD exacerbations.

**Methodology**
A multiple regression analysis was performed on data retrieved from a retrospective chart review of 50 patients. Records were reviewed for the following patient variables: COPD stage, chronic diseases, tobacco status; and provider variables: number of visits (excluding visits for exacerbations) to the provider, number of counseling occurrences, and evidence of a clinical practice guideline in place. Total number of exacerbations during the study period was recorded.

**Results**
Four variables (STAGE, TOB, CPG, and COUNSEL) produced an R of .424, R² = .18, (F (4, 45) = 2.464, p = .059) for the prediction of COPD exacerbations. The strongest predictor was COUNSEL (β = .402), followed by STAGE (β = .135), CPG (β = -.109), and TOB (β = .003). These findings suggest that patients who had more COPD exacerbations received more counseling from the provider. A negative correlation meant the more often CPGs were in place, the fewer COPD exacerbations experienced. The results suggest there are some patient and provider attributes that are associated with COPD exacerbations.

**Implications for Practice**
This study provided evidence that certain patient and provider attributes are related to COPD exacerbations. Further investigation into this relationship is warranted with a larger sample. The relationship between counseling and COPD exacerbations was statistically significant. Patient understanding of their disease process and multiple inhaled medications along with their triggering factors for exacerbations are important. Ongoing education should be included at routine visits. Interventions designed to increase and reinforce patient education are needed.
Culturally Sensitive Health Education to Decrease Uncontrolled Hypertension in African American Women

**Purpose**
The purpose of this scholarly project was to develop a culturally sensitive educational brochure for African American women with hypertension based on perceived and actual barriers that impede blood pressure control in this population.

**Methodology**
A comprehensive appraisal of the existing body of knowledge yielded potential barriers to blood pressure control in African American women with hypertension. These barriers were then translated into an educational brochure that specifically targets middle-aged, African American women with primary hypertension.

**Results**
The most prevalent barriers identified included adherence, poor knowledge, health beliefs, poor communication with health care providers, and lack of resources. The information included in this brochure addressed these barriers as well as how to overcome them.

**Implications for Practice**
This brochure may serve as a useful educational tool to health care providers who manage African American women with hypertension. To successfully manage hypertension, health care providers must recognize that the barriers to hypertension control are unique to this population. This brochure addresses these barriers and provides a culturally sensitive intervention for hypertension control in African American women.

Jannyse Starks, RN, MSN, FNP-BC
Family Nurse Practitioner
Optimal Utilization: An Exploration of Resources through a Nurse Practitioner/Surgeon Collaborative Practice Model in Otolaryngology

**Purpose**
The purpose of this project was to determine the cost-effectiveness of a nurse practitioner/surgeon collaborative practice model that was designed to treat nonsurgical otolaryngology patients.

**Methodology**
A retrospective chart review methodology was utilized for the purpose of determining the percentage of patients being treated by the nurse practitioner for nonsurgical diagnoses. A total of 443 nurse practitioner clinical encounters met the inclusion criteria.

**Results**
Eighty-two percent of the reviewed encounters were classified as patients with non-surgical problems. Taking into consideration multiple comparison variables of the nurse practitioner and the otolaryngology surgeon, a nurse practitioner/surgeon substitute cost ratio was calculated at 0.26. In other words, for every dollar spent paying an otolaryngology surgeon to treat nonsurgical patients, only 26 cents would be spent paying the nurse practitioner for the comparable service.

**Implications for Practice**
As a result of this project, the fiscal impact of the nurse practitioner/surgeon collaborative practice model has now been quantified. It can be stated with reasonable certainty that there is a significant comparative financial benefit in utilizing a nurse practitioner instead of an otolaryngology surgeon in treating nonsurgical patients. The possibilities of expanding future nurse practitioner services into other surgical specialties should be explored.
The Development of an HIV/AIDS Risk Profile: African American Women Engaging in Heterosexual Relationships

**Purpose**
The purpose of this project was to construct an HIV/AIDS transmission risk profile for sexually active African American women engaging in heterosexual relationships.

**Methodology**
This project was of a descriptive study design utilizing a convenience sample from an urban private primary care practice in Nashville, TN. Participants completed a survey based on the Theory of Gender and Power. Descriptive statistics were used to compare the population and survey participants. Descriptive and inferential statistics were used to analyze data provided by the population.

**Results**
The Sexual Health Risk Profile addresses the patients’ sexual history as well the three constructs of the Theory of Gender and Power. It may be used with African American women that are at least 18 years of age, sexually active, and involved in heterosexual relationships. It addresses a woman’s level of risk based on her survey response, priority construct for which intervention is needed, recommended interventions, and a screening algorithm.

**Implications for Practice**
The Sexual Health Risk Profile can be used to provide clinicians with a general idea of a patient’s sexual history and factors influencing her decisions about sexual practices. It should be used as a pathway to manage reproductive health. Utilizing the recommended frequency of screening and profile update would increase the opportunities that are often missed at screening sexual health due to the provider’s perception of the woman’s risk of acquiring HIV/AIDS.

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