

# DOCTOR OF NURSING PRACTICE SCHOLARLY PROJECTS ~ 2012

VANDERBILT UNIVERSITY



School of Nursing

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VANDERBILT UNIVERSITY  School of Nursing

## FOREWARD

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Congratulations to the 2012 DNP Graduates! We celebrate your scholarship – integrating and applying knowledge into practice throughout the US and globally. You have mastered the competencies necessary for planning and initiating change within health care systems as members and leaders of interprofessional teams, recognizing the current state of evidence and societal needs

*Colleen Conway-Welch*

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



## FROM THE DIRECTOR

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The future of nursing is now as our 2012 DNP graduates lead interprofessional teams in creating meaningful innovations. The scholarly projects of the 2012 graduates cross geographical and discipline boundaries in identifying gaps in evidence and practice. Self-described change masters their impact on quality outcomes for patient-centric health care will be recognized across myriad organizations globally.

*Donna Behler McArthur*

Donna McArthur, PhD, FNP-BC, FAANP  
Professor of Nursing and DNP Program Director  
Vanderbilt University School of Nursing



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# The Practice of Providing Pre-Medication for Non-Emergent Intubation of Patients in the NICU

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## **Purpose**

The purpose of this scholarly project was to identify 1) if pre-medication was given to infants prior to non-emergent endotracheal intubation; 2) the occurrence of adverse effects associated with the procedure; 3) what pre-medications were used; and 4) the attitudes and barriers described by health care providers regarding the administration of pre-medication.

## **Study Design**

A retrospective chart review was performed on infants admitted to a Neonatal Intensive Care Unit who required endotracheal intubation between January 1, 2010 and January 1, 2011. A survey was used to determine the attitudes and barriers of health care providers (neonatologists, neonatal fellows, and neonatal nurse practitioners) regarding the use of pre-medication for non-emergent intubation of infants who required the procedure.

## **Results**

Sixty charts were reviewed from infants who required endotracheal intubation (30 preterm and 30 full-term). A total of 84 intubations were performed; 58 of the intubations were non-emergent. Fifty-seven percent (n=33) of the infants received pre-medication prior to the intubation

procedure with Fentanyl given most frequently. Out of the 84 intubations performed, 72 (85%) were successful after the first attempt; (30%) reported intubation adverse effects with 56% occurring when pre-medications were not given.

Forty eight surveys were sent to neonatologists, neonatal fellows and neonatal nurse practitioners with a response rate of 71% (n=34). Barriers identified for not giving pre-medication for non-emergent endotracheal intubation included not enough time; no standard protocol; and adverse effects of medications. Twenty nine (85%) of respondents reported that they routinely give pre-medication for intubation most commonly using Fentanyl and Versed.

## **Implications for Practice**

Findings suggest that more health care professionals think they routinely administer pre-medication for non-emergent intubation when in reality this is not the case. Additional data are needed to identify the reasons why pre-medication is not being administered. The results of this project suggest that an evidence-based protocol regarding pre-medication for non-emergent intubation of infants may increase this practice among health care professionals working in the NICU.



**Wendy A. Araya, MSN, APN,  
NNP-BC**  
*Neonatal Nurse Practitioner*



**Karen Michelle Ardisson,**  
**MSN, RN, ACNP-BC**  
*Acute Care Nurse Practitioner*

## Evaluation of a Pre-Operative Group Education Class for Patients Undergoing Radical Prostatectomy for Treatment of Prostate Cancer

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### **Purpose**

To evaluate the effect of a pre-operative group education class on the knowledge level, expectations, and preparedness of men having radical prostatectomy for the treatment of prostate cancer.

### **Methodology**

Fifty-one men already attending the Men's Wellness: Life Beyond Prostate Cancer group education class were invited to participate and were given a letter of informed consent and verbal instructions. All surveys were completed immediately before and after the class. The pre- and post-class surveys were identical except for a demographic section included with the pre-class survey. Questions were primarily knowledge based with three questions pertaining to patient expectations and one question regarding preparedness. Completed and returned surveys implied informed consent. Survey data was electronically entered into REDCap™, a secure, online database.

### **Results**

Final analysis included forty-nine men who returned completed pre- and post-class surveys. Descriptive statistics and bivariate analysis

were performed using REDCap™ and SPSS™.

Improvement in knowledge scores from the pre-to post-class was statistically significant with a mean score of (M=12.7) with a standard deviation (SD=1.6) on the pre-class survey and (M=13.6) with (SD=1.7) on the post-class survey. A paired samples t-test was performed. Significant differences in the scores;  $t(48) = 4.41, p < .001$ , suggested the pre-operative group education class is helpful in improving the knowledge of men preparing for radical prostatectomy. No significant changes in perceived preparedness were observed. Measurable changes in patient expectations were demonstrated by a regression to the mean.

### **Implications for Practice**

Due to the inherent threats to internal validity with this quasi-experimental design, future studies should include a control group. Men who attend the group education class are more knowledgeable about what to expect when preparing for radical prostatectomy and demonstrate more realistic expectations relating to potential side effects of treatment than if they had not attended the class. Efforts should be made to expand the group education program and make class content available and accessible to more patients.

# A Needs Assessment of Long-Term Care Nursing Assistants' Empowerment and Their Role in Care Planning

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## **Purpose**

The purpose of this needs assessment was to assess empowerment perceptions of Parker Jewish Institute's nursing assistants in their careplanning roles addressing resident-centered care. The results will guide development of quality improvement and educational activities that further develop nursing assistants' careplanning skills.

## **Methodology**

Empowerment Perception Questionnaire utilizing concepts of knowledge and opportunity, shared responsibilities, and power from Kanter's Theory of Organizational Empowerment, was developed and disseminated to nursing assistants working on two long-term care units.

## **Results**

Response rate of 57% (N=77) was achieved from both units. Shift and unit comparisons of empowerment variables revealed that nursing assistants similarly responded affirmatively to knowledge and opportunity questions, followed by power and shared responsibilities with the care plan team. Lack of communication, mutual respect, and involvement by all shift nursing

assistants were the most relevant factors associated with disempowerment perceptions.

## **Implications for Practice**

Care plan teams should include nursing assistants thus empowering nursing assistants to provide quality resident-centered care. Results from the questionnaire highlight opportunities for quality improvement initiatives emphasizing team building, communication and leadership skills for the nursing assistants to be effective team members.



**Colleen Clarke-Ariola,  
MSN, HSM**  
*Health Care Systems  
Management/Nursing  
Administration*



**Tisha Barzyk, MSN, ACNP-BC, CWS**  
*Acute Care Nurse Practitioner*

## Wound Management Guidelines for the Orthopaedic Trauma Patient Population

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### **Purpose**

The purpose of this quality improvement project was to develop evidence-based practice guidelines for postoperative wound management in the Vanderbilt Orthopaedic Trauma outpatient clinic in Nashville, Tennessee to connect providers with the evidence base and improve patient care.

### **Methodology**

A literature review was performed to obtain current evidence from research studies, articles and educational materials published in the past 10 years on wound care practices, facilitators of wound healing and common factors that impede wound healing. Observational data was gathered on current provider wound care practices and patient assessment data using a developed tool to identify essential content for the guidelines.

### **Results**

The literature review produced the evidence needed to develop thorough evidence-based practice guidelines. Provider observations revealed a gap between current practices and the evidence base and data gathered on 43 patients showed a 35% wound complication rate and

presence of a complicating factor that could affect wound healing in 74% of the patients; both indicating the need for evidence based practices to ensure quality care. Using the evidence gathered, three guidelines were developed on care of a postoperative surgical incision, care of a wound with soft tissue loss and treatment of a superficial wound infection

### **Implications for Practice**

The anticipated effect following implementation of the evidence-based practice guidelines in the clinic is improvement of provider wound management and patient outcomes.

# Evaluating Quality of Life in Heart Failure Patients Using Previously Established Self-Questionnaires: A Pilot Study

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## **Purpose**

The purpose of this pilot project was to assess the perceptions of quality of life in patients diagnosed with heart failure and to introduce the concept of palliative care as an early intervention for improving quality of life in these patients.

## **Methodology**

A convenience sample of twenty patients diagnosed with heart failure was asked to complete two questionnaires that consisted of the Minnesota Living with Heart Failure Self-Questionnaire (MLHF-Q) and the Spirituality Well Being Assessment Scale (SWBS). The National Consensus Project for Quality Palliative Care provided the framework for the project.

## **Results**

There was no statistically significant relationship between the demographic variables, quality of life, and spirituality combined. Data collected revealed that age did not correlate with an impaired ejection fraction. Results of the Spiritual Well Being Scale revealed that patients diagnosed with HF reported scores lower than the typical stable medical patient in both existential and religious well being.

## **Implications for Practice**

The information gleaned from this project can be used to inform practitioners in this setting about their patient's potential needs and perhaps using these assessment tools as an entry point for patient-clinician discussion of their individual needs. This could potentially influence quality of life, treatment, and the prognosis of heart failure patients using self-questionnaire tools by examining social and spiritual support systems.



**Tamatha Michelle Bednar,**  
**MSN, ANP**  
*Adult Nurse Practitioner*



**Mark William Burns, MSN,  
ACNP, FNP, E-TNS**  
*Family Nurse Practitioner/  
Acute Care Nurse Practitioner*

## Development of A Clinical Practice Guideline for Subcutaneous Measurement of the Nonisotopic (Cold) Iothalamate By Capillary Electrophoresis In Urine of The Pre-Diabetic Navajo Native American To Determine Creatinine Clearance

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### **Purpose**

Development of a clinical practice guideline for the subcutaneous injection and subsequent measurement of the nonisotopic (cold) iothalamate by capillary electrophoresis from urine of the pre-diabetic Navajo Native American to determine creatinine clearance.

### **Methodology**

Extensive research and critical analysis of existing literature, consultation with physician experts, synthesis of criteria for practice guideline development, and incorporation of culturally sensitive theoretical concepts were merged for design of the iothalamate clinical practice guideline.

### **Results**

Iothalamate use in determination of creatinine clearance rates has been proven to provide an accurate, cost effective, efficient method for detection of early renal disease, providing opportunities for advanced practice nurses to initiate measures to prevent progression to end stage renal disease and improve quality of life for the Navajo Nation.

### **Implications for Practice**

Use of the iothalamate clinical practice guideline has the potential to allow advanced practice nurses to provide holistic care for the Navajo Native American population, while supporting health initiatives outlined by Indian Health Services and tribal leadership.

# Instrument Development: Infant Developmental Education for Adolescent Moms Survey (IDEAS)

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## **Purpose**

To adapt an existing instrument of adult mothers' knowledge of infant development and pilot a new knowledge-assessment tool for adolescent mothers of premature infants.

## **Methodology**

The modified tool was administered to adolescent mothers between 13 and 19 years, with a singleton, premature infant (less than 37 weeks gestation), less than 1 month of age at participation. Mothers were identified for participation through a local neonatal intensive care unit. IRB approval was obtained.

## **Results**

A literature review documenting the significance of the problem, coupled with theoretical and conceptual analyses, provides useful information as to the necessity for this adapted tool. This small pilot study showed feasibility and acceptability of the tool.

## **Implications for Practice**

Additional participants in future studies will provide data to establish psychometrics and assess adolescent mothers' knowledge needs. This tool can then be used to help design educational interventions for this population.



**Angel Carter, MSN, APRN,  
NNP-BC**  
*Neonatal Nurse Practitioner*





**Shawana Crawford, MSN,  
ACNP-BC**  
*Acute Care Nurse Practitioner*

## Adherence Rates to Hepatocellular Carcinoma Surveillance at a Hepatology Practice

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### **Purpose**

The purpose of this study was to determine the adherence rates to hepatocellular carcinoma surveillance at a hepatology practice.

### **Methodology**

A retrospective chart analysis was conducted on 115 patients who were seen at the practice between June 2010 and June 2011. Demographical data as well as dates of serum alphafetoprotein levels and abdominal imaging were collected.

### **Results**

Optimal hepatocellular carcinoma surveillance, which included alphafetoprotein levels and abdominal imaging every 6 months was conducted on 21.7% of the patients. Suboptimal surveillance, which included alphafetoprotein levels and abdominal imaging every 7-12 months was conducted on 61% of the patients. Of the patients within the study, 17.3% did not have

surveillance during the study period. Patients with alcoholic cirrhosis and hepatitis C cirrhosis had higher percentages of adherence rates in comparison with some of the other diagnoses (41.7% and 25% for alcohol cirrhosis and hepatitis C cirrhosis, respectively, versus 4.8% and 25% for hepatitis B cirrhosis and cryptogenic cirrhosis, respectively).

### **Implications for Practice**

In order to reduce hepatocellular carcinoma related mortality, hepatocellular carcinoma needs to be detected early when these tumors are suitable for curative or effective therapies. Those persons at risk for developing hepatocellular carcinoma should undergo regular surveillance every 6 months in order to promote early detection and better outcomes. At Liver Consultants of Texas hepatocellular carcinoma surveillance rates were found to be low, indicating need for improvement.

# Screening African-American Women to Increase Cardiovascular Risk Factor Awareness

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## **Purpose**

The purpose of this project was to screen and educate adult African-American women of individual risk factors for developing coronary artery disease.

## **Methodology**

An outpatient screening was conducted on fifty-three African-American women in two church settings located in rural Franklin, Kentucky. Screening included laboratory analysis, measurement of blood pressure, height, weight and body mass index, smoking, and exercise history. Each participant received a brochure identifying individual results compared to normal values derived from evidence-based guidelines.

## **Results**

Descriptive statistics analysis was used to evaluate risk factors listed in order of frequency as follows: obesity, lack of exercise, elevated SBP, low HDL cholesterol, elevated total cholesterol, elevated LDL cholesterol, elevated triglycerides, elevated DBP, smoking and elevated glucose levels.

## **Implications for Practice**

Consistent with current literature, these findings support the recommendation for increasing awareness of risk factors for coronary artery disease. Therefore, healthcare providers need creative and innovative strategies to promote increased awareness and education regarding risk factors.



**Debbie Drake-Davis, MSN,  
ANP, MBA**  
*Adult Nurse Practitioner*



**Mary Kate FitzPatrick,**  
**MSN, RN, ACNP, NA**  
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Nursing Administration*

## Advancing Nurse Practice Through Implementation of a Peer Review Education & Competency Program: A Pilot Project

---

### **Purpose**

The purpose of this project was to assess nurses' needs and perceptions related to peer review and, based on findings, implement an education and competency program to support nurses' ability to participate in peer review activities.

### **Methodology**

A survey was administered to 75 nurses on two pilot units in an academic magnet-designated medical center, to determine needs and perceptions related to peer review for the purpose of advancing practice. Yielding a 91% response rate, the findings of the survey along with data from the literature informed development of an educational program, including a simulation skills lab. Twenty-seven nurses completed the educational program. A pre/post test was administered, and during the program nurses were observed to determine if they exhibited key competencies of giving and receiving feedback in a videotaped simulation lab.

### **Results**

Improvement in knowledge regarding key techniques for giving and receiving peer feedback following completion of the program was

demonstrated. In addition, > 80% of participants (n=20) were able to demonstrate 10 out of 15 key skills for giving and receiving feedback to support peer review.

### **Implications for Practice**

With greater emphasis on value-based care and the importance of clinician accountability to prevent avoidable patient conditions, nurse peer review continues to gain importance, yet few organizations have been able to comprehensively implement. Literature supports that nurses are best equipped to provide feedback to each other related to practice and that formal preparation supports nurses' competency and comfort with skills of giving and receiving feedback. The locus of control of a nurse is important to predict how nurses will be able to engage in reflective practice and to seek feedback on areas needing improvement. This project identified key areas of need and perception of nurses related to peer review, and demonstrated that completion of a peer review educational program was associated with increased immediate knowledge and observed skill level for giving and receiving feedback.

# Comparison of Air Force (AF) Flight Nurse Core Competencies with Selected Nurse Core Competencies and Wounded Warriors' Patient Care Requirements

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## **Purpose**

To describe patient care requirements of those military personnel aeromedically evacuated over a six year period; identify core competencies and core curriculum elements; identify which core competencies were needed to care for evacuated patients during this period; and compare both the published competencies of various nurse groups and the required competencies as reflected by patient characteristics with existing AF aeromedical evacuation (AE) flight nurse training curriculum .

## **Methodology**

The TRANSCOM Regulating and Command & Control Evacuation System (TRAC2ES) database was queried for the period between 1 January 2006 and 1 January 2012 for patient characteristics. Next the numbers, types and nursing care required in flight were collected and analyzed. Then, the clinical competencies required to care for the identified patients transported were determined. Finally, the flight nurse curriculum was evaluated to determine if any gaps existed.

## **Results**

A total of 146,361 AE patient movement records were reviewed for the past six years. The top 25 primary diagnoses and top 21 secondary diagnoses were analyzed for each of the calendar years. Seventy- five percent of the patients transported were found in the top seven primary diagnoses: orthopedic surgery (33,496); psychiatry (18,144); general surgery (14,778); neurosurgery (14,268); internal medicine (9,728); neurology (9,476); and cardiology (3,695).

## **Implications for Practice**

AF flight nurses must be highly skilled and trained. This project provided additional evidence and a better understanding of the types of patients and specialized equipment that is being used inflight. AE squadron commanders, chief nurses and flight nurses should look for clinical training opportunities to better prepare them to care for our nation's most precious cargo. The number and types of casualties that were evacuated and the high survival rate are testimony to the success of the current AE mission and its formal training.



***Diane L. Fletcher, MSN, NA***  
*Nursing Administration*



**Andrea Johnson Fuller,**  
**MSN, FNP-BC**  
*Family Nurse Practitioner*

## Implementation of Obesity Clinical Practice Guideline with the Army MOVE! Weight Management Program

---

### **Purpose**

The purpose of this project was to implement practice based on best evidence derived from the Veterans Affairs (VA)/Department of Defense (DoD) obesity clinical practice guideline (CPG) specific to the Army's current comprehensive weight management program, the Army Motivating Overweight Veterans Everywhere! (MOVE!) program.

### **Methodology**

The Army MOVE! program was evaluated at Landstuhl Regional Medical Center (LRMC) for inclusion of best practice methods from recommendations of the VA/DoD CPG for obesity. Evaluation revealed the need to implement a more intense program, increasing initial weight loss reduction time to 12 weeks with a bi-weekly interdisciplinary support focus. Meal replacements were introduced for use as an incentive for attendance and as a tool in caloric reduction. At the end of the twelve-week period, participants were evaluated for overall satisfaction with the program, body mass index (BMI) change and voluntary attendance rate.

### **Results**

Attendees (n=5) of the 12-week program demonstrated an average 75% attendance rate, BMI decrease of 2.3% (M=2.3%,  $\pm 0.016$ ) overall, and an overall satisfaction rate with the bi-weekly 3 month meeting schedule. Participants reported total approval of the informative meeting format and felt the meal replacements were helpful as a weight loss management tool.

### **Implications for Practice**

Implementation of a 12-week, higher intensity meeting schedule of the Army MOVE! program, with use of meal replacements as an attendance incentive and weight loss tool, were well received and effective among this group of participants. Expansion of this format into the present Army MOVE! program across other medical treatment facilities within the Army Medical Department may demonstrate improved weight loss efforts for program participants.

# Evaluation of Outpatient Hemodialysis Clinic Staff Knowledge of Patient Adherence

---

## **Purpose**

The purpose of this quality improvement (QI) project was to evaluate the outpatient hemodialysis clinic staffs' knowledge of adherence and outcomes.

## **Methodology**

This was a pilot project focused on the evaluation of the outpatient hemodialysis clinic staff knowledge of patient adherence following an educational intervention. To accomplish the objective, an education program was offered with a pre and posttest

## **Results**

Data analysis from this project revealed that participation in the education program on adherence and outcomes demonstrated an improvement in the knowledge level of the outpatient hemodialysis clinic staff. A paired sample t-test was calculated with a mean on the pretest of 3.8286 (SD = 1.38236) and a mean of 6.6286 (SD = 2.01590) with a  $p = .000$ .

## **Implications for Practice**

Findings from the project suggest the advanced practice nurse has an important role in developing education programs to assist nurses and other outpatient hemodialysis staff better understand treatment adherence and outcomes. The knowledge gained from the results will guide the development of future education programs for the outpatient hemodialysis clinic staff.



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**Eileen Griffin, MSN, CRNA,  
APN**  
*Certified Registered Nurse  
Anesthetist*

## Intraoperative Respiratory Care of Premature Infants: Development of Evidence-Based Guidelines for Anesthesia

---

### **Purpose**

The Monroe Carell Jr. Children's Hospital at Vanderbilt (MCJCHV) neonatal intensive care unit (NICU) and pediatric anesthesia teams observed a lack of consistency related to the intraoperative respiratory care of premature infants. The purpose of this quality improvement project was to develop clinical practice guidelines for anesthesia providers to facilitate a consistent evidence-based practice

### **Methodology**

A retrospective chart review was conducted on premature infants born at less than 33 weeks gestational age and requiring surgical intervention within 30 days of life. An interdisciplinary task force, including both NICU and pediatric anesthesia personnel, was appointed to develop evidence-based clinical practice guidelines related to intraoperative respiratory care.

### **Results**

Data analysis revealed inconsistencies in intraoperative respiratory care among anesthesia providers. Inconsistencies were noted in means of ventilation during transport to and from the operating room, range of FiO<sub>2</sub> and associated

SpO<sub>2</sub>, use of a specialized ventilator for infants 1000 grams or less, use of neuromuscular blocking agents intraoperatively, correct endotracheal tube placement postoperatively, and postoperative disposition (NICU vs. post-anesthesia care unit).

### **Implications for Practice**

The interdisciplinary task force utilized the results of the data analysis and developed clinical practice guidelines (CPG) based on current evidence. Recommendations include development of an educational program to disseminate the CPGs to anesthesia staff members. Post-implementation data analysis could contribute to evaluation of CPG effectiveness in improving patient care outcomes. The described quality improvement framework utilizing the PDSA cycle could be used in a variety of clinical situations with identified shortcomings or needs.

# The Effectiveness of the Dedicated Education Unit

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## Purpose

The Dedicated Education Unit (DEU) model has been implemented across the US as an alternative model of undergraduate clinical nursing education. This study evaluated the effectiveness of the DEU model in the following ways: (1) the school of nursing cost; (2) the faculty satisfaction; and (3) the impact on the nursing student.

## Methodology

A cross-sectional design that included D'Youville College's 41 undergraduate clinical nursing faculty and 114 May 2011 BSN graduates were asked to participate. D'Youville College SON clinical teaching expenses were evaluated. Faculty data and student data were collected through semi-structured clinical questionnaires, designed specifically for this project. New graduates' undergraduate clinical grades and NCLEX-RN scores were compared based upon the type of clinical training they had as undergraduates.

## Results

Faculty who taught in the DEU model (80% response rate) prefer the DEU model. Faculty who taught in the traditional model (52% response rate) would like to teach in the DEU model. The majority of faculty who taught in the traditional model reported difficulty assisting

students to achieve expected clinical outcomes, socialize in the clinical arena, develop student clinical competence, and sustain the service-partner relationship. Faculty who taught in the DEU model reported it to be easier to meet these key clinical components. DEU faculty reported spending more time with each student per clinical day. New graduates (41% response rate) favored the DEU model. New graduates' employment, clinical progression grades, NCLEX-RN scores, satisfaction with clinical preparation, and intent to stay on the unit, at the institution and in nursing were statistically the same between those who experienced the DEU model and those who did not. New graduates who had 2 DEU clinical rotations (n=5) had no unsatisfactory clinical grades and 100% NCLEX-RN pass rate. Monetary costs of the DEU varied by semester.

## Implications for Practice

The DEU model is an equitable option to the well-established traditional clinical training model. Research on the benefits of having two DEU rotations needs to be investigated. As the need for both nurses and nursing faculty increases, alternatives to the traditional clinical training model need to be comprehensively evaluated.



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## Development of an Educational Brochure for Premenopausal Women Following Breast or Gynecologic Cancer Treatment

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### **Purpose**

The purpose of this project was development of an educational brochure to address options for menopausal symptom management in women experiencing or who may experience surgical or pharmacologically induced menopause as a result of breast or gynecologic cancer treatment.

### **Methodology**

A comprehensive appraisal of the existing body of knowledge revealed fragmented data, gaps in practice, and unmet informational needs regarding the provision of health education and decisional support for women survivors of cancer who experience premature menopause. Following review and synthesis of the evidence, identified menopause-related informational needs were translated into an educational brochure that specifically addressed the most common menopause-related questions among breast and gynecologic cancer survivors, and provided evidence-based information regarding available pharmacologic and non-pharmacologic therapies for symptom management. The brochure was then distributed to experts and consumers to be reviewed for content and face validity.

### **Results**

It was concluded that women have unmet informational needs regarding premature menopause and the management of associated symptoms. Information included in the brochure addressed identified informational needs via the provision of evidence-based information regarding benefits and side effects of treatment for menopausal symptom management, and facilitated an informed decision-making process with one's healthcare provider.

### **Implications for Practice**

With the increased number of breast and gynecologic cancer survivors, attention to the menopause-related informational needs of women is warranted in order to facilitate informed decision making regarding the pursuit of treatment for menopausal symptom management that is congruent with one's personal values and expectations. The brochure not only serves as a tool for addressing informational needs, but affords nurse practitioners the opportunity to maximize benefits from evidence-based therapies that provide menopausal symptom palliation, in addition to long-term effectiveness and safety.

# Caregivers' Informational Website: How to Use Non-Pharmacologic Interventions to Treat Agitation in Persons with Dementia Who are Living at Home

---

## **Purpose**

The aim of this scholarly project was to develop an educational website to educate caregivers of persons with dementia who live at home to use non-pharmacologic interventions to treat agitation.

## **Methodology**

The website went live on the Internet with the URL [www.agitationinterventions.org](http://www.agitationinterventions.org) hosted by Andy Barr Productions. Descriptive statistical analysis was completed using Google Analytics. In addition, ten caregivers were selected to review the website and answer a three question caregiver survey.

## **Results**

Results showed that 100% of caregivers reported the website was useful, would recommend the website to others, and felt confident in using a non-pharmacologic intervention.

## **Implications for Practice**

The website could be utilized as a future performance improvement project initiative intended to measure if there is a relationship between caregiver perceived self-efficacy in using non-pharmacologic interventions to treat agitation in persons with dementia who live at home and re-hospitalization rates.



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## Development of a Clinical Protocol to Assess the Need for Early Palliative Care Intervention in Veterans Classified as Polytrauma, Seriously Injured or Ill

---

### **Purpose**

The purpose of this scholarly project was the development of a Clinical Assessment Protocol for use by Patient Aligned Care Teams and care managers at the Grand Island Campus of the Department of Veterans Affairs Nebraska Western Iowa Health Care System to determine if Operation Enduring Freedom and Operation Iraqi Freedom (OEF/OIF) veterans, classified as polytrauma or seriously injured or ill, are in need of early Palliative Care Consultation Team referral.

### **Methodology**

A cross-walk analysis compared and contrasted six Veterans Health Administration directives and handbooks central to OEF/OIF veterans and palliative care alongside the Clinical Practice Guidelines for Palliative Care was conducted. Gaps were identified in the areas related to the Clinical Practice Guidelines Domains of “Structure and Process”, “Psychosocial”, “Spiritual”, and “Cultural Aspects of Care”.

### **Results**

A holistic veteran-centric Clinical Assessment Protocol was designed to assist Patient Aligned Care Teams and care managers in systematically focusing on key areas to determine if early palliative care intervention may benefit the veteran's health and quality of life.

### **Implications for Practice**

Patient Aligned Care Teams and care managers play an essential role in facilitating veterans' health. The Clinical Assessment Protocol assists these professionals in making decisions regarding interventions. This interdisciplinary holistic approach of care provides an avenue for the veteran to articulate individual long-term goals of care. This approach ultimately promotes a veteran-centric continuum of care to achieve optimal quality of life through a well-designed, well-organized and individualized ongoing plan of care.

# Family Centered Care Initiative: NICU Open Visitation. One Unit's Journey to Update Practice

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## **Purpose**

The purpose of this project was to examine specific elements of the change process that nursing staff experience when 24 hour open visitation hours were implemented in a small Neonatal Intensive Care Unit.

## **Methodology**

Data were collected in January 2012 using a Likert scale survey administered to the staff, as well as the families of the patients in the NICU. Families were assessed on overall satisfaction with their stay in NICU which included the hours the NICU allowed visitation. The staff survey consisted of questions addressing self-identified barriers to the change in visitation hours.

## **Results**

The family survey results indicated the families were more satisfied post implementation of open visitation in the NICU. Staff responses to each question were analyzed and resulted individually. It was noted that many of the items that resulted in dissatisfaction for staff were not directly related to the change in visitation hours.

## **Implications for Practice**

Implementation of the organizational change project allowed for insight into the change process for this group of staff and improved patient satisfaction in this unit. An understanding of how to navigate future changes in this type of environment will be essential for both current and future successful organizational change to occur.



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## An Evaluation of the Identification and Management of Overweight and Obesity in a Pediatric Primary Care Setting

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### **Purpose**

The purposes of this project were to evaluate whether pediatric primary care providers were accurately identifying overweight and obesity within the primary care setting and applying American Academy of Pediatrics (AAP) guidelines for overweight and obesity management within Chamblee Primary Care.

### **Methodology**

A retrospective chart review was completed of all visits presenting for a well-child visit from January 1, 2011 through June 30, 2011. Charts were identified through clinic reports within Chamblee Primary Care, Atlanta, Georgia for identified age ranges, specifically 2-year, 6-year and 10-year old patients. Inclusion criteria: primary diagnosis code of routine infant or child health check. Exclusion criteria: none. In the final analysis 255 charts were reviewed for child's age, gender, ethnicity, height, weight, body mass index (BMI), BMI percentile for age, documentation of obesity or overweight and corresponding International Classification of Diseases, Ninth Revision (ICD-9) code, counseling and coding on diet and exercise, referral, labs and follow-up.

### **Results**

A total of 255 charts reviewed, 21.6% (n=55) of patients were overweight and 18.4% (n=47) were obese. Of those identified children 34% (n=35) were properly documented within the chart, 27% (n=28) were assigned the correct ICD-9 code and 36% (n=37) were counseled on diet and exercise. Mean BMI percentile increased among the age groups, specifically the average percentile was higher for 10-year-olds versus the 2-year-olds and was significantly associated with age. Among the five providers, the identification of overweight children was addressed more consistently by the nurse practitioner than the MDs.

### **Implications for Practice**

Chamblee Primary Care providers failed to consistently identify overweight and obese patients, as evidenced by a review of charts and coding practices. Early intervention and management of overweight and obese patients is important and should be addressed at well child visits. Pediatric primary care providers are in a unique position to influence the child and family's development of healthy lifelong habits.

# An Obstetric Anesthesia Crisis Resource Management Curriculum

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## **Purpose**

The purpose of my scholarly project was to develop a crisis resource management curriculum and evaluation schema for anesthesia providers that care for obstetric patients along a continuum of experience and clinical contexts, including developing health care systems.

## **Methodology**

An extensive literature review was undertaken to determine the most serious events in the anesthetic management of parturients and evidence-based strategies for their management. A curriculum template that combined didactic instruction and clinical simulation was created using the precepts of crisis resource management, and an evaluation schema was developed with outcome-based criteria.

## **Results**

An outcome-based education process was developed for a crisis resource management curriculum in the management of airway difficulties, maternal hemorrhage, regional anesthesia mishaps and cardiovascular emergencies in obstetric anesthesia practice.

## **Implications for Practice**

The curriculum fills a current need for standardized training in the management of obstetric anesthesia emergencies based on evidenced-based strategies and crisis resource management principles. The project responds to Institute of Medicine and Joint Commission recommendations for safety initiatives using simulation and team training, aligns with trends in professional certification processes for ongoing assessment of provider competence, and contributes to health promotion efforts, such as Healthy People 2020 and World Health Organization Millennium Development Goal 5, to reduce maternal mortality.



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## An Integrative Review of the Use of Palliative Care in Patients with Acute Leukemia

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### **Purpose**

This integrative review describes the use of palliative care referrals in patients with acute leukemia. Previous research suggests that patients with hematological malignancies, including acute leukemia, receive later referrals to hospice and palliative care than do patients with solid tumor malignancies. Consequently, these patients often die while receiving aggressive care that is considered to be futile with poor symptom management. Similarly, professional and non-professional caregivers experience compassion fatigue and complicated grief and bereavement, respectively.

### **Methodology**

Major publications accessed using systematic literature searches of the Cochrane Databases, PubMed, and CINAHL were included in this review. Clinical practice guidelines examining the use of palliative care referrals were also reviewed. Due to the limited amount of articles identified, the literature search was expanded to include hematological malignancies. Findings specifically related to acute leukemia and the use of palliative care were extracted and included in the review.

### **Results**

Twelve articles utilizing eleven unique cohorts met the search criteria. One clinical opinion and two evidence-based clinical practice guidelines were also included in this review. Recurrent themes included palliative care referrals, barriers and facilitators to palliative care referral, pain and symptom management, prognostication and clinical practice guidelines.

### **Implications for Practice**

Further research examining the use of palliative care in patients with acute leukemia is needed. More specifically, studies examining patients', non-professional and professional caregivers' perspectives of palliative care as well as the cost-effectiveness of palliative care in patients with acute leukemia are warranted. Literature from other disease entities discusses the importance of nurses' involvement in communication and multidisciplinary care. These concepts may be applicable to acute leukemia if further research were conducted.

# Screening for Developmental Delays and Autism Spectrum Disorders in a Rural Arizona Primary Care Pediatric Clinic

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## **Purpose**

The purpose of this project was to describe the practice of screening and referrals for developmental delays (DD) and autism spectrum disorder (ASD) in young children at Little Critters Pediatrics, a primary care pediatric practice in rural Bullhead City, AZ.

## **Methodology**

A retrospective chart review was used to assess the adherence to the American Academy of Pediatrics (AAP) screening recommendations for DD and ASD. The referral process was assessed, as well as the description of the demographics of those meeting referral criteria.

## **Results**

Of 109 children included in the chart review, 56 (72%) and 18 (54.5%) children were age appropriately screened for DD and ASD using the parental report ASQ, and M-CHAT, respectively. Of the 9 children referred, 7 (77.7%) were identified after 30 months. In comparing the children who were referred to the

children not referred for formal developmental evaluation, the following demographics were observed, increased rates of parental smoking (67% v. 31%), equal rates of state insurance (77.7% v. 75%), increased rates of family history of mental health illness (77.7% v. 12.5%), increased rates of family history of alcohol abuse (44.4% v. 12.5%), and increased rates of parents not together, divorced or separated (55% v. 29%).

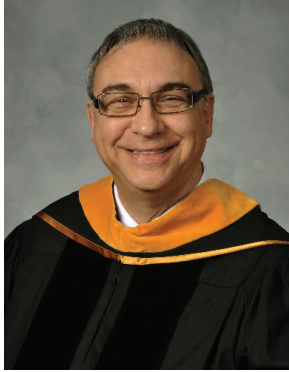
## **Implications for Practice**

Several demographic risk factors for DD and/or ASD were present in this rural community, and actual screening practices were below the AAP recommendations. A systems concern secondary to state funding for early intervention programs was identified. Increased programs available for children identified after 34 months needs to be in place or more developmental preschools for the high risk children. A reminder system needs to be implemented to primary care offices for screening and referrals of DD & ASD.



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## A Current State Assessment of Anesthesia Controlled Medication Security in Ambulatory Surgery Centers

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### **Purpose**

Anesthesia provider drug diversion studies are sparse that include certified registered nurse anesthetists and are nonexistent for ambulatory surgery centers (ASCs). The purpose of this ASC specific project that included all anesthesia provider types, was to assess (1) a 5-year facility diversion history, (2) current anesthesia controlled medication security practices, (3) barriers to enforcement of closed system security and (4) determine which regulatory agency had the most influence in enforcement of drug security.

### **Methodology**

An assessment was conducted through a self-report, anonymous survey distributed to administrators of ASCs in Alabama, Tennessee and Mississippi who are members of the Ambulatory Surgery Center Association (n=108). The questions elicited a 5-year facility controlled medication security history, current security methodology and attitudes toward security control. The survey included questions regarding perceived barriers to the initiation of or maintenance of closed system security, and regulatory agency influence on security enforcement. Descriptive statistics were used

to summarize, organize and simplify the data through the use of frequencies and percentages.

### **Results**

Among the 44 (41%) respondents there were 36 unresolved count discrepancies with 10 (23%) respondents reporting a total of 25 confirmed diversions. Registered nurses comprised (36%) of providers who diverted anesthesiology controlled medications followed by anesthesiologists and then nurse anesthetists. Security monitoring questions elicited information about random drug testing, drug wastage analysis, drug trace audits, and strict chain of custody methodology. Findings indicated that chain of custody security measures are not followed by the majority of ASCs and monitoring methodology was very limited. Thirty-nine (89%) respondents reported no perceived security enforcement barriers and that accrediting agencies have the most influence upon security enforcement in ASCs whereas state facility licensing agencies have the least.

### **Implications for Practice**

Closed system security methodology education opportunities abound. Research should be expanded to determine the national ASC diversion and security state.

# Addressing Barriers Associated with Adherence to Diabetes Plans of Care at the Marian Clinic

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## **Purpose**

The primary purpose of this project was to develop a standardized, systematic method of data collection about diabetes management strategies. A secondary purpose was to identify areas for improvement in care of diabetes patients at the clinic.

## **Methodology**

Through the development of a Diabetes Episodic Visit Form (DEVF), non-adherence to elements of diabetes care were identified and compared with provider plan of care strategies over two three-month data collection cycles. Dietary changes, self-foot assessment, physical activity participation, medication adherence, home blood glucose testing, vision screening and laboratory diagnostics were evaluated.

## **Results**

The data showed providers increased addressing elements of non-adherence to diabetes plans of care in cycle 2 as compared to cycle 1. Through the development of a Care Index ratio, a 14% improvement in addressing non-adherence elements to diabetes care was noted in the provider plan of care.

## **Implications for Practice**

The DEVF provided a standardized, systematic form for data collection about the diabetes management practices at a safety-net clinic. Through the identification of deficiencies, quality improvement goals can be set and educational programs developed.



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## An Integrative Review of the Effect of Behavioral Interventions in Primary Prevention on Global Cardiovascular Disease Risk

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### **Purpose**

The purpose of this integrative review was to examine studies that incorporated behavioral interventions into primary prevention of cardiovascular disease (CVD) and measured outcomes as global CVD risk. Behavioral modification interventions have been shown to be effective in modifying individual cardiovascular risk factors, but their use in reducing global CVD risk has not been demonstrated.

### **Methodology**

An integrative review was performed using inclusion criteria consisting of: use of behavioral techniques as interventions; adult population; use of global CVD risk as defined by event rates or validated risk scores as the outcomes measure; control arm (for non-observational studies) consisting of usual care; peer-reviewed journal; English language; and clear description of inclusion criteria, evaluation of the CVD risk of the population, and intervention strategies or techniques. Exclusion criteria were: purely non-behavioral intervention; absence of intervention such as epidemiologic studies; and inclusion of participants with known CVD. The literature search was performed in MEDLINE, CINAHL Cochrane database, and by hand search of reference lists.

### **Results**

In 29 studies comprising 28,147 participants, behavioral interventions decreased global CVD risk in 75% of the studies. Behavioral interventions increased healthy behavior and reduced levels of individual CVD risk factors. Decreased global CVD risk persisted up to 126 months after the interventions ended. Reduction in global CVD risk was achieved with low levels of intervention dose including single visits. The design of the studies did not allow identification of which behavior intervention attributes were most effective. Cost effectiveness was not performed in any studies. Nursing involvement was limited.

### **Implications for Practice**

Behavior intervention can be used successfully to reduce global CVD risk. The findings from this integrative review affect nursing practice in the areas of CVD prevention, program design, and research. More research is necessary to understand which attributes of behavioral intervention are most clinically and cost effective. The paucity of nursing involvement in intervention programs provides an opportunity for nursing research to examine the role of nursing into this evolving application of behavioral science.

# An Educational Module to Improve Nurses' Knowledge About Inadvertent Perioperative Hypothermia

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## **Purpose**

The purpose of this scholarly project was to develop an educational module to improve knowledge among perioperative nurses regarding inadvertent perioperative hypothermia.

## **Methodology**

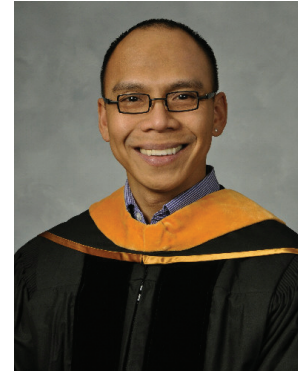
Based on a literature review, a learning module was developed that presented evidenced-based strategies for the prevention of perioperative hypothermia. An evaluation tool was produced that assessed the impact of the educational module on learner domain knowledge.

## **Results**

Knowledge outcomes influence nursing practice significantly. The educational module entitled "Perioperative Hypothermia: Stopping it cold in its tracks" was created using voice-over Power Point® (VOPPT) format. The educational module was accompanied by a pretest and a posttest examination to assess knowledge acquisition by the learner.

## **Implications for Practice**

The provision of quality perioperative care requires the application of evidence-based practices in promoting normothermia in surgical patients. Perioperative nurses must possess the requisite knowledge and comprehension of the risks, management, and prevention of perioperative hypothermia. This educational module serves as a vital component of strategies to improve perioperative care, not only by appraising current knowledge, but also by addressing prevailing knowledge deficits among caregivers. Ongoing efforts to educate perioperative nurses about hypothermia and its effects are essential in order to reduce the incidence of this preventable condition and mitigate its deleterious consequences.



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**Chizoba Ugbaja, MSN, FNP**  
*Family Nurse Practitioner*

## Assessment of Perceptions and Preferences Influencing Eating Behaviors of Patients with Type 2 Diabetes Mellitus Attending a Rural Community Clinic

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### **Purpose**

The purpose of this project was to assess perceptions and preferences influencing eating behaviors of overweight or obese patients with Type 2 Diabetes Mellitus in a rural community clinic in the Southeastern United States.

### **Methodology**

Following a needs assessment, a brief 7 item survey was developed, and offered to 150 adults with Type 2 Diabetes in a rural community clinic. The Health Belief Model provided the framework for the survey. Perceptions included diabetes control, weight, need for change, access to dietary resources, and support. Patients' dietary and interventional preferences were also assessed. Stratification of data and descriptive statistics was utilized for data analysis.

### **Results**

40% of these patients (n=120) perceived control of their diabetes was "bad"; 30% of the respondents described their diabetes as "good", while the remaining 30% were "unsure". A perception of adequate support was noted by 100% of respondents. 90% of these patients

perceived their weight as "too much". The need for dietary change was expressed by 80% of the respondents, with the majority listing a variety of high fat and/or high carbohydrate foods in their current diets. Many respondents noted a desire for assistance from healthcare providers to facilitate lifestyle changes that promote weight loss and overall health, such as dietary sessions and handouts.

### **Implications for Practice**

The results of the project survey will inform and assist the healthcare providers in developing self-management and dietary interventional strategies that are ethnically, economically, and educationally tailored to patients with Type 2 diabetes in this rural clinic. Providers may also develop and incorporate a "Willingness to Change" scale in the office notes to assess and track patients' willingness to make healthy changes, such as dietary and /or exercise modification, over time. It is hoped that these interventions will empower patients with Type 2 Diabetes to become a more active part of the healthcare team and partner in efforts to improve health outcomes within this community.

# Primary Care Providers' Perceptions of Parental Coping with Asthma

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## **Purpose**

This project explores a military base's primary care practitioners' perceptions of parental coping with asthma and parental masking of asthma symptoms. Additionally, this project evaluated whether the primary care practitioners' level of clinical expertise was related to the practitioner's perceptions of coping.

## **Methodology**

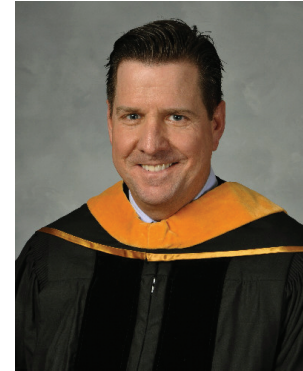
The project used a seventeen question survey, distributed to all primary care providers assigned to a United States military base.

## **Results**

Clinical experience did not have an impact on primary care practitioners' perception of parental masking or minimizing asthma symptoms, primary care providers have the perception that military families may not want an asthma diagnosis in their child's medical record, and primary care providers have the perception that masking or minimizing asthma symptoms occurs.

## **Implications for Practice**

The findings of this scholarly project have the potential to improve clinical asthma care, especially at military bases, by recognizing primary care clinicians' perceptions that: asthma in children is difficult to diagnose; parental masking of asthma symptoms can occur; and unfamiliarity with programs intended to assist parents and patients, such as Exceptional Family Member Program, may hinder proper diagnoses.



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## Evaluation of a Mentoring Pilot Program for Advanced Practice Providers in an Academic Medical Center

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### **Purpose**

The purpose of this project was to: (1) develop a program evaluation plan for the Center for Advanced Practice Nursing and Allied Health's advanced practice provider (NP, CNS, CRNA, CNM, or PA) mentoring pilot program using a group mentoring model and (2) conduct an evaluation of the pre-survey and first content cycle of the pilot program.

### **Methodology**

Data was collected from participants using Vanderbilt University's REDCap electronic data capture tools. Surveys #1 and 2 were developed using 4-point Likert Scale responses, yes/no, multiple choice and open-ended questions to evaluate participants' experiences in the pilot program, assess their general attitudes about the pilot program, and determine whether the mentoring pilot was meeting the program's goals and participants' needs.

### **Results**

Participants (n=20) expressed satisfaction with the small-group mentoring format. Ninety-five percent (n=19) indicated the mentoring pilot program improved their leadership skills and 100% reported the group mentoring format facilitated development of relationships across the medical center. Ninety-five percent (n=19) agreed that their practice had been enhanced since beginning the mentoring pilot program.

### **Implications for Practice**

This project provided evidence that group mentoring is an effective method to meet the ongoing professional development needs of advanced practice providers. Upon completion of the mentoring pilot program, recommendations will be made for a permanent mentoring program for all advanced practice providers in the medical center.

# Nandi Traditional Healers: Sentinels in an Underserved Healthcare Environment

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## **Purpose**

The purpose of this project is to understand, describe and begin to preserve through documentation the key aspects of health and illness beliefs, traditional healing knowledge and practice, and barriers and facilitators to care from the healer perspective of four Nandi traditional healers from a small village in rural western Kenya, and identify future culturally congruent community-based health care projects.

## **Methodology**

Individual interviews and a focus group were conducted with four local traditional healers, identified by a primary healer and verified by community members. Interviews were led by an English speaking doctoral nursing student with the help of a cultural and linguistic interpreter, well known to participants. Audio data was recorded and English translations were transcribed verbatim and analyzed for themes. Themes were corroborated by the participants in a focus group and reviewed by the project committee.

## **Results**

Five themes were identified surrounding traditional healing knowledge (the 'strength and

know-how to cure'), traditional healing practice ('giving the medicine'), compensation ('the wet grass'), outsiders ('middle-men') and the future ('a way forward'). While significant concern exists surrounding interaction with outsiders, participants reveal a strong desire to collaborate with formally educated healthcare providers and express urgency regarding the need to preserve their knowledge and share it with others.

## **Implications for Practice**

These themes will form a foundation for the future development of culturally relevant health care initiatives in this unique community, simultaneously improving health care access and preserving key cultural practices. These healers are sentinels for their community, providing the nurse with critical information about emerging diseases, economic and ecological threats, gaps in development and implementation of national health policy, and pathways to engagement for improving community health.



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