RESEARCH DAY 2013
April 19, 2013

I. Dodd Wilson Education Building
UAMS Medical Center Campus
4301 West Markham Street
Little Rock, Arkansas 72205

College of Nursing, University of Arkansas for Medical Sciences
Central Arkansas Veterans Healthcare System Nursing Service
Sigma Theta Tau International Gamma XI Chapter
Arkansas Children’s Hospital
University of Arkansas for Medical Sciences (UAMS) Medical Center
RESEARCH DAY 2013 EXHIBITORS

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Sigma Theta Tau International Honor Society of Nursing
Gamma Xi Chapter
http://nursing.uams.edu/gammaxi

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Fax: 501.364.3980 E-mail: odomms@archildrens.org

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501.3641362
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Nurse Recruiter & Recruitment
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E-mail: temple-ericksonsusan@uams.edu
RESEARCH DAY 2013 PLANNING COMMITTEE

University of Arkansas for Medical Sciences College of Nursing
Conference Program Planning and Coordination; Abstract Review; Event Staffing; Registration Processes; Evaluation Analysis; Door Prize Donations; Exhibitors
Lee Blackwood, Department Business Manager; Keneshia Bryant, PhD, FNP-BC, RN; Bill Buron, PhD, RN, FNP/GNP-BC; Julia Goodwin, PhD, RN, Research Day Chair; Matthew Hadley, DNP, RN, PNP, FNP; Tamisha Henderson, MSN, MHA, RN, CCM; Seongkum Heo, PhD, RN; Stacy Hoyle, MHSA, Assistant Dean for Administration; Sara Jones, PhD, RN; Ednarene Rodgers, Administrative Assistant II; Heba Sadaka, MSN, RN, CNE; Ayasha Stewart, MNSc, APN, WHNP-BC; Mark Tanner, MNSc, BSN, RN; Beth Ann West, Administrative Analyst

Central Arkansas Veterans Healthcare System Nursing Service
Continuing Nursing Education (CNE) Provider; CNE Evaluation Forms and Certificates; Program Planning and Abstract Review;
Charlotte Brunner, MNSc, RN, CCRN
Michael Farruggia, RN, PhD
Sue Ragsdale, MSN, APRN, ACNS-BC
Sheila Sullivan, PhD, RN

Arkansas Children’s Hospital
Program Planning; Abstract Review; Event Staffing
Angela Green, PhD, RN, NNP-BC, APN
Amy Huett, PhD(c), RN
Lametria Wafford, MNSc, RN

University of Arkansas for Medical Sciences Medical Center
Abstract Review; Poster Presentation Coordination; Door Prize Donations; Event Staffing
Becca Austin, MNSc, APN; Lana Brown, MNSc, PhD(c), RN-BC; Erin Bush, BSN, MAIOC, RN; Cassandra Fonseca, CSM, RN, Amy Garrett, RN, Kara Haynie, BSN, RN; Amy Hester, BSN, RN, BC; Joe Jimmerson, MNSc, RN; Deborah Johnson, MNSc, RN; Tammy Jones, PhD, RNC; Tiffany Linz, RN; Jimmy Leach, BSN, RN; Kara Mincy, RN; Karin Nudo, RN; Sherry Oldner, RN; Nikarlo Rogers, BSN, RN; Luanh Tran, RN; Sheryl Young, RN

Sigma Theta Tau International—Gamma Xi Chapter
Financial Support, Networking, Student Poster Awards
WELCOME TO RESEARCH DAY 2013!

This annual conference has grown over the past few years and broadened its scope to include evidence-based practice, advanced nursing practice, nursing education, and staff development from a variety of nursing practice settings, in addition to academic nursing research.

Here are some tips to help make the day productive:

- Please take time to review the activities scheduled for the day. Note that times and room numbers are listed on the detailed schedule of activities.
- There are four points in the day in which attendees have multiple concurrent options from which to choose. Review the titles listed on the detailed schedule and the abstracts (available online) to plan which you will attend
  o Breakout Session I: A or B or C
  o Breakout Session II: D or E or F
  o Poster Session I (multiple rooms)
  o Poster Session II (multiple rooms)
- Visit the exhibits to learn about career opportunities
- Network with others who have similar interests in nursing, nursing science, and evidence for practice. Consider noting contact information and/or abstract numbers for later use.
- Restrooms and the elevator are along the west side of the building. Stairs are in the middle of the building. Lunch will be served on both levels of the building for everyone’s convenience. Name badges are coded for the type of lunch requested.
- CE certificates will be awarded upon submission of completed evaluation forms and hours are based on hours of actual participation in the day’s activities. Those who cannot stay the whole day are welcome to request hours for the sessions attended.

CONTINUING NURSING EDUCATION CONTACT HOURS

At the completion of this conference, the participant will be able to:

1. Describe techniques, methods, and strategies used in evidence-based practice.
2. Discuss the utilization of nursing research based on current findings.
3. Describe educational and clinical practice innovations and resources.

All program planners and presenters have signed Conflict of Interest forms, indicating that they have no financial relationships with commercial entities which produce or disseminate pharmaceutical or other patient-care products or devices, that they will not discuss off-label use of such products or devices, and will not endorse products of these entities. Any support from commercial entities will be provided in the form of unrestricted educational grants which will not influence the educational program. If provided, such commercial support will be announced during the opening session, and published in the program book.

By attending the entire program, nurses will earn 6.25 Continuing Nursing Education contact hours. In order to earn these hours, nurses must submit the completed evaluation form, which will be exchanged for a certificate of completion. Less contact hours may be earned by those who attend only part of the program.

Central Arkansas Veterans Healthcare System is an approved provider of continuing nursing education by Arkansas Nurses Association, an accredited approver by the American Nurses Credentialing Center’s COA.
KEYNOTE SPEAKER

Moving from Evidence to Improvement: Resources to Make It Happen

KATHLEEN R. STEVENS, RN, EdD, ANEF, FAAN
Professor and Director
Academic Center for Evidence-Based Practice www.ACESTAR.uthscsa.edu and
Improvement Science Research Network www.ISRN.net
University of Texas Health Science Center at San Antonio

Dr. Kathleen R. Stevens is founding director of the center for excellence, the Academic Center for Evidence-based Practice (ACE); since 2000, she has garnered $7 million to support efforts that advance evidence-based quality improvement through research, education, and practice. Her funded program research emphasizes evidence-based quality improvement and patient safety through knowledge transformation, workforce preparation, and workforce engagement in evidence-based quality improvement.

She has received significant funding to develop a national network to support rigorous improvement research projects (NIH); to create community-wide collaborative for team training (UT System); and engage front line teams in quality improvement in acute care (RWJF). The goal of her recent work is to conduct projects that generate and disseminate evidence about interventions to improve care processes, systems, patient safety, and outcomes and to stimulate application of this evidence in practice by clinicians, patients and families, and other members of the health care system. Her decade-long position as founding director of the Academic Center for EBP (ACE), a center of excellence, has afforded her broad experiences with multiple projects and sharpened her research and project implementation skills. She is experienced in the field of improvement science, and an experienced scientist in evidence-based quality improvement with multiple large-scale grants, PI for multiple programs to advance professional development in quality improvement, an effective planner and group leader, and published in the field.

She acts in national level consultant and expert roles, including panel expert for the Institute of Medicines report, Preventing Medication Errors, advisory council member to safety projects of the National Institutes of Health and Department of Defense, and editorial board member for the AHRQ Health Care Innovations Exchange and provided services to AHRQ to build the AHRQ Health Care Innovations Exchange. She is consultant to hospitals seeking recognition of excellence and education programs in implementing EBP curricula.

Her work has earned her multiple awards, among these, fellow of the American Academy of Nursing, fellow of the Academy of Nurse Educators, Texas Nurses Association Nurse of the Year, and National League for Nursing Excellence in Nursing Education Research.
## Research Day 2013
### Friday, April 19, 2013

<table>
<thead>
<tr>
<th>TIME</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 - 8:15AM</td>
<td>Registration and Continental Breakfast</td>
</tr>
<tr>
<td>8:15 - 8:30AM</td>
<td>Welcome/Introductions/Building Orientation</td>
</tr>
<tr>
<td>8:30 – 9:30AM</td>
<td><strong>Keynote Address</strong> Room IDW 126 &amp; 226 Moving from Evidence to Improvement: Resources to Make It Happen Kathleen Stevens, RN, EdD, ANEF, FAAN</td>
</tr>
<tr>
<td>9:30 – 10:30AM</td>
<td><strong>BREAKOUT SESSIONS I</strong></td>
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<tr>
<td></td>
<td><strong>Breakout Session I: Option A</strong> Room IDW 226</td>
</tr>
<tr>
<td></td>
<td>Safety of Noninvasive Electrical Stimulation at Acupuncture Points (NESAP) as an Analgesic During Painful Procedures in Newborn Infants Abstract #1 Mitchell--CON</td>
</tr>
<tr>
<td></td>
<td><strong>Breakout Session I: Option B</strong> Room IDW 126</td>
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<tr>
<td></td>
<td>Developing Structures and Processes Demonstrating the Model Components of the ANCC Magnet Recognition Program® Leads to Improved RN Satisfaction Scores. Abstract #41 Whitt -- SVI</td>
</tr>
<tr>
<td></td>
<td><strong>Breakout Session I: Option C</strong> Room IDW 115</td>
</tr>
<tr>
<td></td>
<td>Reducing Cost and Length of Stay Utilizing an Acute Care Unit ENT Progressive Care Program Abstract #7 Williams – UAMS</td>
</tr>
<tr>
<td>9:30 – 10:30AM</td>
<td>Effect of Web-Camera Viewing of Neonates on Parent Stress, Anxiety and Bonding Abstract #45 Rhoads Kinder -- UAMS</td>
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<td></td>
<td>Measuring Impact of Patient and Family Centered Rounds Abstract #12 LaBorde--UAMS</td>
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<tr>
<td></td>
<td><strong>Using Unit Level Nursing Dashboards to Promote Quality Improvement</strong> Abstract #43 J. Frazier -- SVI</td>
</tr>
<tr>
<td>10:30 – 10:45AM</td>
<td>Break</td>
</tr>
<tr>
<td>10:45-11:45AM</td>
<td><strong>Poster Session I</strong> IDW Rooms 214, 213, 206, 115, 106, 105</td>
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<tr>
<td>Time</td>
<td>Activity</td>
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<tr>
<td>11:45 – 12:30PM</td>
<td>Lunch (provided for all pre-registrants. Refer to color on name badge.)</td>
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<tr>
<td>12:30 – 1:30PM</td>
<td>Poster Session II IDW Rooms 214, 213, 206, 115, 106, 105</td>
</tr>
<tr>
<td>11:45 – 12:30PM</td>
<td>Lunch (provided for all pre-registrants. Refer to color on name badge.)</td>
</tr>
<tr>
<td>12:30 – 1:30PM</td>
<td>Poster Session II IDW Rooms 214, 213, 206, 115, 106, 105</td>
</tr>
<tr>
<td>1:30 – 2:30PM</td>
<td><strong>BREAKOUT SESSIONS II</strong></td>
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<tr>
<td></td>
<td>Breakout Session II: Option D Room IDW 226</td>
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<tr>
<td></td>
<td>Breakout Session II: Option F Room IDW 115</td>
</tr>
<tr>
<td>1:30 – 2:30PM</td>
<td><strong>Excessive Daytime Sleepiness, Sleep Quality and Mood in Community-Dwelling older Women with and without Breast Cancer</strong> Room IDW 226</td>
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<tr>
<td></td>
<td><strong>The Impact of Workplace Violence on Emergency Department Nurses: A Pilot Study</strong> Room IDW 226</td>
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<td></td>
<td><strong>Validating the Self Exubation Risk Assessment Tool (SERAT)</strong> Room IDW 226</td>
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<tr>
<td>2:30 – 2:45PM</td>
<td>Break</td>
</tr>
<tr>
<td>2:45 – 3:45PM</td>
<td>Symposium With Panel Discussion Sondra Bedwell, Lana Brown, Pam Killebrew, and Panel Room IDW 126</td>
</tr>
<tr>
<td>3:45 – 4:00PM</td>
<td><strong>Submit Evaluations, Pick Up CE Certificates, Door Prizes!</strong></td>
</tr>
</tbody>
</table>

**Notes:**
ACH = Arkansas Children’s Hospital
Ark Tech Univ = Arkansas Technical University
CAVHS = Central Arkansas Veterans Healthcare System;
CON = University of Arkansas for Medical Sciences College of Nursing;
UAMS = UAMS Medical Center
<table>
<thead>
<tr>
<th>Abstract #</th>
<th>Title</th>
<th>Primary Author</th>
<th>Present Poster at Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Building Joint Commission continuous readiness in partnership with nursing students: “Teach it See it Do it”</td>
<td>Baas UAMS Med Center</td>
<td>10:45 – 11:45 AM</td>
</tr>
<tr>
<td>49</td>
<td>Effectiveness of Safe Sex Programs on College Students</td>
<td>Bates, et al. Henderson State University</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>37</td>
<td>Incivility in Nursing Education</td>
<td>Davis UAMS College Of Nursing</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Recruiting and Educating Nursing Students for Disaster Response through the American Red Cross</td>
<td>Schmidt UAMS College Of Nursing</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Creation of a framework for nurse education and professional development with integration of the Association for Nursing Professional Development (ANPD) scope and standards of practice</td>
<td>Webb ACH</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Evidence for promoting tobacco cessation in patients with serious mental illnesses to decrease chronic pain</td>
<td>Dupins CAVHS</td>
<td>12:30 – 1:30 PM</td>
</tr>
<tr>
<td>53</td>
<td>Women and Heart Disease Risk: Knowledge is Power</td>
<td>Fortenberry, et al. U of A Monticello</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>23</td>
<td>Managing medication after pediatric heart transplant: Parent and adolescent views</td>
<td>Nelson ACH</td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>Cessation for Procreation</td>
<td>Savage, et al. Henderson State University</td>
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<tr>
<td>65</td>
<td>The Drinking Heart</td>
<td>Vandiver, et al. Henderson State University</td>
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<tr>
<td>Abstract #</td>
<td>Title</td>
<td>Primary Author</td>
<td>Room/Poster Session</td>
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<tr>
<td>56</td>
<td>Attitudes of the Direct-Care Nurse toward Advanced Practice Nurses in the Hospital setting</td>
<td>Green &amp; Crumpton UAMS College of Nursing, SVI</td>
<td>10:45 – 11:45 AM</td>
</tr>
<tr>
<td>58</td>
<td>Adding Advanced Practice Nurses to Inpatient Medicine Teams</td>
<td>Cindy Huffer, MSN, RNP-BC UAMS College of Nursing</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>6</td>
<td>Advancing quality in an ambulatory setting through collaborative partnerships</td>
<td>Terry UAMS Medical Center</td>
<td>12:30 – 1:30 PM</td>
</tr>
<tr>
<td>39</td>
<td>Implications and prevention of health care worker fatigue: A literature review</td>
<td>Austin, Bush, Lites UAMS Medical Center</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>32</td>
<td>Gourmet Research</td>
<td>Farruggia CAVHS</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>The effect of distance mentoring on the implementation of evidence e-based practice</td>
<td>Sullivan/Ragsdale CAVHS</td>
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<tr>
<td>Abstract #</td>
<td>Title</td>
<td>Primary Author</td>
<td>Room/Poster Session</td>
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<tr>
<td>59</td>
<td>Generational Differences at Work: A Literature Review</td>
<td>Jones UAMS Graduate School, ACH</td>
<td>10:45 – 11:45 AM</td>
</tr>
<tr>
<td>13</td>
<td>Use of a concept map to improve critical thinking skills in new graduate nurses</td>
<td>McNatt UAMS Medical Center</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>16</td>
<td>Growing our Young: Transitioning new Graduate Nurses into Burn Intensive Care Nurses</td>
<td>Sanders ACH</td>
<td></td>
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<tr>
<td>4</td>
<td>How To Prevent Your Crew From Jumping Ship</td>
<td>Erickson UAMS Medical Center</td>
<td>12:30 – 1:30 PM</td>
</tr>
<tr>
<td>28</td>
<td>RN Career Shadowing: Exploring career opportunities and developing mentoring relationships</td>
<td>Fesler CAVHS</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>38</td>
<td>Evidence for using simulation during nursing orientation to enhance knowledge and skill with medication administration</td>
<td>Toney CAVHS</td>
<td></td>
</tr>
</tbody>
</table>
### POSTER PRESENTATIONS
**ROOM 115**
(I. Dodd Wilson Education Building, First Floor)

<table>
<thead>
<tr>
<th>Abstract #</th>
<th>Title</th>
<th>Primary Author</th>
<th>Room/Poster Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Improving cardiac arrhythmia recognition and evaluation in diagnostic labs</td>
<td>Anderson CAVHS</td>
<td>10:45 – 11:45 AM</td>
</tr>
<tr>
<td>50</td>
<td>Comparison of forced-air warming with resistive-polymer warming to treat hypothermia in perioperative adult patients</td>
<td>Caststeel UAMS College of Nursing Baxter Regional Medical Center</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>27</td>
<td>Effectiveness of having a Dedicated Admission / Discharge Nurse</td>
<td>Garcia UAMS Medical Center</td>
<td></td>
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<tr>
<td>8</td>
<td>Central line bundle: Preventing catheter-related bloodstream infections</td>
<td>Richardson CAVHS</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>In Patients with Diabetes, How Does Negative Pressure Wound Therapy Compared To Wet-To-Dry Dressings Promote Wound Healing? An Evidence-Based Project</td>
<td>Storey UAMS College of Nursing</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Preventing Health Care Associated Infections in burn patients: A multidisciplinary prevention and monitoring program</td>
<td>Brown, Welch, et al. ACH</td>
<td>12:30 – 1:30 PM</td>
</tr>
<tr>
<td>48</td>
<td>Catheter Associated Urinary Tract Infections (CAUTI)</td>
<td>Almand &amp; Smith UAMS College Of Nursing</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>9</td>
<td>Don’t let SPECI-man escape your reach without his cape!</td>
<td>Griffin ACH</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Improving documentation compliance with admission checklists</td>
<td>Kerr UAMS Medical Center</td>
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<tr>
<td>Abstract #</td>
<td>Title</td>
<td>Primary Author</td>
<td>Room/Poster Session</td>
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<tr>
<td>19</td>
<td>Promoting and Sustaining Hand Hygiene Compliance in the UAMS Neonatal</td>
<td>Butler UAMS Medical Center</td>
<td>10:45 – 11:45 AM</td>
</tr>
<tr>
<td></td>
<td>Intensive Care Unit</td>
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<td><strong>Leave posters in place until 2:45PM</strong></td>
</tr>
<tr>
<td>52</td>
<td>Effectiveness of the Edinburgh Postnatal Depression Scale in</td>
<td>Emerson, et al. U of A at Monticello</td>
<td>10:45 – 11:45 AM</td>
</tr>
<tr>
<td></td>
<td>Identifying Women with Postpartum Depression</td>
<td></td>
<td><strong>Leave posters in place until 2:45PM</strong></td>
</tr>
<tr>
<td>62</td>
<td>Neutral Head Positioning in the NICU</td>
<td>Riley &amp; Bennett UAMS College of Nursing, ACH</td>
<td>12:30 – 1:30 PM</td>
</tr>
<tr>
<td>55</td>
<td>Benefits of Using a Sugar Based Substance to Alleviate Neo-natal</td>
<td>Goodman, et al U of A at Monticello</td>
<td>12:30 – 1:30 PM</td>
</tr>
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<td></td>
<td>Pain During Painful Procedures</td>
<td></td>
<td><strong>Leave posters in place until 2:45PM</strong></td>
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<tr>
<td>5</td>
<td>Qualitative assessment of nursing perceptions related to</td>
<td>Patterson UAMS Medical Center</td>
<td>12:30 – 1:30 PM</td>
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<tr>
<td></td>
<td>implementation of pet therapy in the antepartum patient population</td>
<td></td>
<td><strong>Leave posters in place until 2:45PM</strong></td>
</tr>
<tr>
<td>61</td>
<td>Early Skin to Skin Contact Improves Breastfeeding Success</td>
<td>Payne, et al. UAMS College of Nursing</td>
<td>12:30 – 1:30 PM</td>
</tr>
<tr>
<td>Abstract #</td>
<td>Title</td>
<td>Primary Author</td>
<td>Room/ Poster Session</td>
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<tr>
<td>34</td>
<td>Electronic communication to enhance unit level shared governance</td>
<td>Bolding CAVHS</td>
<td>10:45 – 11:45 AM</td>
</tr>
<tr>
<td>51</td>
<td>Exercise and Depression: Yoga vs. Aerobics</td>
<td>Davidson, et al. Henderson State University</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>24</td>
<td>Quality score card implementation: Guiding the continuous improvement of patient care</td>
<td>Kirk ACH</td>
<td></td>
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<tr>
<td>60</td>
<td>The Impact of Social Support on Quality of Life in Stroke Survivors</td>
<td>Knight, et al. U of A at Monticello</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The power of words: Redesigning change of shift report on a medical surgical unit</td>
<td>Roberson CAVHS</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Evidence Based Practice: Complementary and Alternative Medicine in Autism Treatment</td>
<td>Gates UAMS College of Nursing; ACH</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Ethical Dilemmas of Attitudes and Perceptions in International Critical Care Nursing: Organ Donation</td>
<td>Hubanks, et al. U of A at Monticello</td>
<td>12:30 – 1:30 PM</td>
</tr>
<tr>
<td>15</td>
<td>Radiofrequency Ablation for Treatment of Barrett’s Esop</td>
<td>Myers UAMS Medical Center</td>
<td>Leave posters in place until 2:45PM</td>
</tr>
<tr>
<td>20</td>
<td>A novel intervention to reduce ED overcrowding: A before and after analysis</td>
<td>Neal &amp; Pereira UAMS Medical Center</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>Establishment of School-Based Mental Health Programs: An Evidence-Based Literature Review</td>
<td>L. Walker UAMS College of Nursing; ACH UAMS Medical Center</td>
<td></td>
</tr>
</tbody>
</table>
Podium
Presentations
Safety of Noninvasive Electrical Stimulation at Acupuncture Points (NESAP)
as an Analgesic During Painful Procedures in Newborn Infants
Mitchell, A. UAMS College of Nursing; Yates, C. UCA Dept of Physical Therapy; Hall, R. W. UAMS College of Medicine, Dept of Neonatology

**Background:** Newborn infants, especially those who are preterm, are frequently subjected to acute pain, which causes physiological instability and long-term alterations in behavior and stress responses. Pharmacological analgesic therapy may be associated with a high incidence of potentially harmful, systemic side effects. Therapies like sucrose, massage, or kangaroo care can reduce pain but are relatively ineffective against severe acute pain. Topical anesthetics are ineffective against heelstick pain. Noninvasive electrical stimulation at acupuncture points (NESAP) works by blocking pain and stimulating release of endorphins. It is a well-known treatment for acute and chronic pain in children and adults, but has never been applied for treating neonates.

**Purpose:** To determine the safety of NESAP for neonates by offering noninvasive acupuncture to healthy full-term infants less than 3 days old who are undergoing routine heel sticks.

**Method:** Permission for the study was obtained from parents, the IRB and the FDA. NESAP was delivered in low doses via an EMPI Select transcutaneous electrical nerve stimulation (TENS) unit with gel-based electrodes at four acupuncture points on the lower leg and ankles. Thirty infants received NESAP for 10 minutes before the heel stick, during the heel stick, and for 5 minutes after the heel stick. Doses of NESAP were titrated as the study progressed to a maximum of 3.5 mA, 10 Hz. The following safety assessments were made throughout NESAP and the heel stick procedure: heart rate and rhythm, respiratory rate, oxygen saturation, blood pressures, skin condition at electrode sites, muscle tone, and neurologic status. Pain levels were scored after initiation of NESAP and during the heel stick using the Premature Infant Pain Profile (PIPP), a composite pain tool that combines physiologic and behavioral measures to provide pain scores from 0-18. A neonatologist made a telephone call to families one week after NESAP.

**Results:** There were no adverse events and no changes in vital signs after initiation of NESAP. Two infants spat up after the heel stick, an expected response. Mean composite PIPP scores of 6 infants receiving doses of 1 mA, 2 Hz and 6 infants receiving 2 mA, 10 Hz were unchanged after initiation of NESAP. Mean composite PIPP scores for infants receiving the maximum dose of 3.5 mA, 10 Hz (n=18) rose from 2.56 at baseline to 3.5 out of a possible score of 18 after initiation of NESAP (nonsignificant). Skin assessment of the electrode sites after NESAP revealed clear skin. There were no problems reported by hospital staff before discharge of infants. There were no problems reported by parents at the one-week follow-up phone call.

**Conclusions:** NESAP is safe as an analgesic for newborn infants.

**Implications for Nursing:** Painful procedures are harmful to infants and additional nonpharmacological pain relief methods are needed for this population. The next step in NESAP research is an effectiveness study to determine whether NESAP significantly decreases pain during painful procedures in infants compared to other interventions. If effective, NESAP may be used for painful procedures in addition to heel sticks.
Effect of Web-Camera Viewing of Neonates on Parent Stress, Anxiety and Bonding
Sarah J Rhoads Kinder and Angela Green

Background: Parents who have neonates in the neonatal intensive care unit may face weeks or months of separation from their neonate. Web-camera technology is being used to lessen the separation. Parents can view their neonate at any time on any computer. Little is known about the effect of web-camera viewing of a hospitalized neonate on parental stress, anxiety and bonding or about parental use of web-cameras. This study will examine use and effects of web-camera viewing.

Purpose: The purpose of this mixed-methods study was to describe parental use of web-cameras in the NICU and to determine how parental stress, anxiety and bonding are affected by parents viewing their hospitalized neonates via a web-based camera in the NICU.

Method: Parents who used the hospital’s web-camera were asked to participate in the research study. The parents completed three standardized measures related to stress, anxiety and bonding at three different time points, baseline, 1 week and 2 weeks after log-on to the web-camera. The parents who chose to participate in the qualitative portion were given four open-ended questions. All portions of the study were completed on-line. In addition, user statistics for the web-cameras were analyzed for mothers and fathers from September 1, 2010 to December 31, 2012.

Results: Since September 1, 2013, 220 parents (119 mothers, 101 fathers) used the web-camera system. Mothers and fathers means were similar in the number of log-ons (95 vs. 95.6 times), number of minutes viewed (1812 vs. 1294 minutes) and maximum time viewed (92 vs. 84 minutes). There were no significant differences between mothers and fathers in the number of log-ons to the web-camera system, the number of minutes viewing the neonate and the maximum number of minutes viewing in one session. Forty-two parents chose to participate in the quantitative study and 13 parents participated in the qualitative portion. Parental stress, anxiety and bonding remained constant during the time period of the study and were not statistically different across the three data collection periods. Parents who had more stress related to the “look of their baby” had a tendency to view the neonate on the web-cam more compared to other parents with a lower stress score. In the qualitative portion three major themes emerged and enhanced the quantitative data: parents would rather be there in person, web-cameras had an overall positive effect on stress and anxiety, and parents want to be with their baby to bond.

Conclusions: This study is important and relevant because there are no other quantitative studies related to parental stress, anxiety and bonding related to web-camera use in the NICU. Even though there was not a statistically significant difference in the stress, anxiety and bonding scores over time, it is important to note that this was a pilot study and with high attrition over the course of the study. Parents expressed considerable stress over how the baby looks and behaves. This portion of the scale asked questions like, how stressful is it “to see tubes and equipment on or near my baby,” “when my baby looked sad,” or “when my baby looked uncomfortable.” This finding goes along with the qualitative data that suggested that parents felt helpless when their neonate was crying or was in an uncomfortable position. One unexpected finding emerged from the overall usage statistics of the web-cameras. Mothers and fathers use the camera system equally and there were no significant differences in the number of log-ons to the web-camera, number of minutes viewed or maximum number of minutes viewed in one session.

Implications for Nursing: It has been well documented in the literature that fathers visit the NICU less than mothers to see their neonate. Web-camera viewing of the neonate could potentially be a way to enhance paternal involvement in the NICU.
Measuring Impact of Patient and Family Centered Rounds

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UAMS Medical Center

Problem and Purpose: Patient and Family Centered Care is an important consideration for the nurse and interdisciplinary team. Incorporating PFCC into care requires innovative strategies. The purpose of this project was to evaluate the effectiveness of incorporating PFCC concepts into interdisciplinary rounds.

PICO Format Question: In adult hospitalized patients, do patient and family center care (PFCC) rounds affect length of stay (LOS), coordination of patient care, patient satisfaction and increased collaboration with team members, patients, and families compared to usual care?

EBP Model/Process: PDSA Model

Relevant Literature: Literature supports incorporating PFCC concepts into care to improve both patient safety and satisfaction.

Method: Using a process improvement methodology, a CNS utilized concepts of a system’s sphere of influence to facilitate medical and nursing leadership participation in an initiative aimed at the development of PFCC rounds. This collaborative process involved weekly planning meetings of key stakeholders to discuss the key requirements of PFCC Rounds, review of data regarding LOS and discharge process for the unit. PFCC rounds were implemented on the unit and progress was reviewed by the key stakeholders.

Outcomes: After a six month period, analysis revealed higher collaboration and communication between medical and nursing staff regarding patients’ POC. Significant improvement was noted in four key patient satisfaction indicators. Average LOS reduced from 5.8 days in fourth quarter 2011 when the project began to a current average LOS of 4.8 days. In addition, the CNS was able to discover and assist with clinical issues noted during rounds, as well as, mentoring and developing staff during real-time teaching moments to address the clinical issues.

Conclusions and Recommendations: PFCC Rounds have proven to be an effective method for the team to promote timely and efficient care and discharges. Improved communication between caregivers strengthened which in turn was reflected in the impact on patient satisfaction and LOS.

Implications for Nursing Practice: PFCC Rounds benefit patients and families by engaging them in their care. Improved communication through information sharing helps all involved move towards better patient outcomes and a shared responsibility in care. The CNS plays a vital role in facilitating PFCC Rounds through ongoing mentoring of nursing staff and providing feedback to medical team.
Developing Structures and Processes demonstrating the Model Components of the ANCC Magnet Recognition Program® Leads to Improved RN Satisfaction Scores
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St. Vincent Health System

Problem and Purpose: The purpose of this evidence-based administrative project was to demonstrate positive changes in RN Satisfaction data in an acute care hospital based on implemented changes in the professional practice environment.

PICO Format Question: In acute care facilities where the model components of the ANCC Magnet Recognition Program® are demonstrated, does professional nursing work lead to improved RN Satisfaction?

EBP Model/Process: Our facility utilizes the Catholic Health Initiatives Evidence-Based Practice Model.

Relevant Literature: The reviewed literature emphasized that nursing programs have not led to the expected differentiated use of RNs with different levels of academic preparation and that BSN prepared RNs are more likely to continue working in hospitals that are Magnet® recognized. The Institute of Medicine report “The Future of Nursing: Leading Change, Advancing Health” recommends nurses achieve higher levels of education and practice to the full extent of their education.

Method: The Registered Nurses of St. Vincent Infirmary worked over a five year period from January 2008 until January 2013 to implement structures and processes demonstrating the model components of the ANCC Magnet Recognition Program®. The following represent some of the components we implemented: 1) Professional Nursing Shared Governance structure with a decision implementation tracking system; 2) Professional Practice Model; 3) Care Delivery System; 4) Care Value Scheduling System; 5) Interdisciplinary Touch-Based Rounding; 6) Bedside Reporting; 7) Structured Communication System; 8) RN Residency Program; 9) Advanced Practice Nurses at the bedside; 10) Unit level dashboards.

Outcomes: 1) Increased BSN preparation as measured within the organization; 2) Increased professional certification as measured within the organization; 3) Improved RN Satisfaction scores as measured by the National Database for Nursing Quality Indicators; 4) A professional nursing shared governance structure that scores within a shared governance environment range on the Index of Professional Nursing Governance; 5) Magnet® Designation by the American Nurses Credentialing Center.

Conclusions and Implications for Nursing Practice: Building a professional practice environment that leads to increased RN satisfaction helps the nursing organization meet standards of excellence required by the ANCC Magnet Recognition Program®. Additionally, this work will assist nursing organizations in meeting the recommendations found in the Institute of Medicine report “The Future of Nursing: Leading Change, Advancing Health.”
Abstract # 2
Nursing Administration Project

Developing a Professional Practice Model
Karen J. Scott, Julie A. Brandt
CAVHS

Problem and Purpose: The purpose of the administrative project was to provide a venue for nurses at all levels of the organization to participate in describing our professional practice through a professional practice model.

PICO Format Question: n/a

EBP Model/Process: n/a

Relevant Literature: Hoffart and Woods published the seminal article on development of a PPM in 1996. The ANCC Magnet Accreditation Manual provided further guidance. These sources recommend the inclusion of recognition, reward, staff development, management, governance, care delivery, and professional relationships as well as the incorporation of Magnet criteria.

Method: Nursing leadership solicited volunteers from throughout the facility to participate in open discussion sessions for purposes of developing a professional practice model (PPM). The team consisted of 40 nurses, approximately half of which were direct care providers. Using a nominal group process and consensus for decision-making, the team created the model over a 4-month period. Each piece of the model has a specific meaning and represents key elements of a professional nursing practice. Media services turned the vision of the group into a model that is recognizable and relevant to our organization. Enculturation of the model has included alignment of Nursing Orientation around the model, education of all nursing staff through symposia, focus groups, and administrative and clinical meetings. Team members also created a brochure describing each component of the model to ensure staff understanding of each symbol as well as the overall meaning.

Outcomes: The team developed the PPM which was rolled out during Nurses’ Week. The staff reaction to the model has been very positive.

Conclusions and Recommendations: Involving staff in creating the PPM ensured the model represented all aspects of nursing at our institution. Additionally, as staff nurses were able to discuss the model with peers during development and roll out, excitement about being involved in the creation of the model became evident. This involvement further enhanced buy in for the final product.

Implications for Nursing Practice: The model provides the basis for reports, our newsletter, and documentation of activities. Using the model also assists in providing justification for nursing activities. Further, the model provides a foundation for nurses to “tell their story” and highlight the value of nursing.
Using Unit Level Nursing Dashboards to Promote Quality Improvement
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St. Vincent Health System

Problem and Purpose: Prior to implementation, access to unit level nursing data was not readily available in a format that could be easily reviewed, analyzed, and trended. Data was not available for direct-care nurses to understand the impact of their care delivery on outcomes; therefore, ownership of quality data was not seen as a priority by direct-care nurses. The purpose of this evidence based initiative was to: (1) provide monthly measures of nursing quality and (2) develop a structure and process whereby direct-care staff could be engaged and empowered to improve quality outcomes.

PICO Format Question: Does the use of unit level dashboards and the engagement of direct-care staff in unit level quality improvement initiatives improve outcomes?

EBP Model/Process: Our facility utilizes the Catholic Health Initiatives Evidence-Based Practice Model.

Relevant Literature: The project team reviewed the literature and found evidence that supports the importance of direct care nurse involvement in performance improvement initiatives and the use of dashboards for nurses to drive quality and promote improved patient outcomes.

Method: Each month, unit level nursing dashboards are produced conveying concise, relevant, and unit-specific information which direct-care nurses utilize to improve patient care processes. In an effort to have ownership of the outcomes listed on the dashboard, the unit-based councils are charged in the Professional Nursing Shared Governance bylaws with reviewing the monthly metrics and collaborating with the nurse manager in the development of action plans for measures which have not met the goal and to submit those plans monthly. This charge to the frontline nursing staff has helped to hardwire the concept of nursing-driven quality within the organization. Annual dashboard planning focuses on identifying national standards for benchmarking, alignment of metrics with organizational and regulatory focus areas, identifying opportunities to make data more meaningful to direct-care nurses, and clearly defining metrics to ensure consistent and accurate data reporting.

Outcomes: The dashboard data is used to continually improve the quality of care that is delivered to patients. The organization is also constantly looking for ways to improve our dashboard process and to make the information available to those who can best use it. As a result, dissemination of comprehensive quality data to direct-care nurses assisted St. Vincent Infirmary toward Magnet® designation in January 2013.

Conclusions and Recommendations: The use of a structured dashboard process can drive improvement of quality initiatives, promote the shared governance structure within healthcare organizations and encourage accountability by direct-care nurses for outcomes resulting from the care they deliver.
Reducing Cost and Length of Stay Utilizing an Acute Care Unit ENT Progressive Care Program

D’Anna Williams, Jami Travis, Mauricio Moreno, UAMS Medical Center

**Background:** Traditionally adult patients undergoing free flap procedures are cared for postoperatively in an ICU unit for 48-72 hours. For these patients that are hemodynamically stable, progressive care is a viable option as an alternative level of care.

**Purpose:** The purpose of this study was to measure the cost effectiveness of transitioning hemodynamically stable free flap ENT patients from either PACU directly or ICU after 24 hours to a progressive level of care versus 48-72 hours at an ICU level of care postoperatively.

**Relevant Literature:** During a review of the literature, evidence was found indicating that head and neck surgery patients can safely be cared for post-operatively outside of the ICU in an appropriate environment with specialized nursing care.

**Method:** Length of stay (LOS) and hospital costs were measured prior to and after implementation of a medical surgical unit based progressive care program. LOS was analyzed using Bartlett’s test and cost was analyzed using the Brown-Forsythe test.

**Results:** There was a significantly lower LOS for patients who were treated on the progressive care unit compared to standard care in the ICU setting (p<0.0001) and significantly lower cost (p=0.0299) associated with care.

**Conclusions:** Implementing progressive level care within an existing medical surgical unit is a cost effective strategy that lowers length of stay in patients undergoing free flap surgery.

**Implications for Nursing:** The upfront investment from nursing involved unit in-services for nursing staff to learn how to provide progressive level care to free flap patients. No additional staff was required to implement this 3 bed progressive program on a 30 bed medical surgical unit.
The Enormous Cost of Ineffective Communication: A Case Study
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Clinical Significance: Ineffective communication has been implicated in the majority of preventable adverse events in healthcare. The United States has a complex, fragmented health care system, yet individuals, many with diminished health literacy, are expected to self-manage their care. Reductionist medicine has been practiced in this country for many years, especially since the advent of managed care and evidence-based medicine. Effective communication is necessary for safe quality health care and positive patient outcomes. Improving awareness of the depth and breathe of the problem, in addition to providing strategies and examples to improve communication and coordination of care can make an important contribution to the health care system.

Statement of Problem (or Purpose): The purpose of this study was to heighten awareness of the vast and costly problem of ineffective communication in health care.

PICO Format Question: In healthcare will heightening the awareness and providing strategies for more effective communications improve coordination of care and patient outcomes?

Literature Search Strategy: The literature search process used Google Scholar, CINHL, Pubmed and UALR’s library’s advanced search. In addition, article references provided a secondary search process. The search terms used were: communication in healthcare; ineffective communication in healthcare; effective communication in healthcare; communication skills in healthcare; and communication and patient outcomes. The secondary search terms were: reductionist medicine; and health literacy. Current nursing textbooks were also reviewed.

Literature Search Results & Evidence: The initial search provided an expansive amount of scholarly articles written related to communication in health care. Using Google Scholar there were 16,800 results since 2009 on ineffective communication in healthcare. Using the advanced search in the online UALR library there were initially 96,296 articles in scholarly or peer reviewed journals. In CINAHL the search resulted in 237 articles on ineffective communication in healthcare; 5726 on effective communication in healthcare; and 58 related to ineffective communication and patient outcomes. Ineffective communication in healthcare is overwhelmingly noted as a serious problem in healthcare leading to enormous cost; but without many effective solutions. The Institute of Medicine, The Joint Commission and The Institute for Healthcare Communication have all outlined the problems and strategies; but without much success with improved communication or patient outcomes.

Evidence from Clinical Case: The case reviewed and aligned with the systemic problem of ineffective communication is that of a 70 year old male, with persistent hypertension >30 years, polypharmacy, diminished health literacy, the history of renal cell carcinoma and now stage 4 metastasis. The case spans more than 10 years with evidence of many incidences of ineffective communication resulting in serious sequelae.

Comparison and Synthesis of Evidence: The case study is just one example of the many facets and complexity of communication in healthcare and how it relates to patient outcomes. Coordination of care and treatment of each person with inherent human dignity seems to be lacking in the current healthcare system. The evidence is very clear on the depth of the problem.

Conclusion and Implications for Nursing Practice: The case study is just an example of the problems that can occur when there is ineffective communication and lack of coordination of care. Awareness of the many facets of the enormity of the problem is the first step. Returning to the basic concepts of holism in patient care, including a team approach to coordinated care and learning to speak a common language is the next. Educating nurses and physicians (and other health care providers) with a systematic approach to patient care can be one effective strategy for improvement in patient outcomes.
Quantifying the Risk of Writing on IV Fluid Bags
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Sue Theus, PhD
Central Arkansas Veterans Healthcare System

Background Nursing students learn never to write directly on IV bags to prevent sharp-ended ballpoint type pens from puncturing the bag or having ink leech through the plastic. We hypothesized current plastics technology combined with current ink technology and soft-tipped permanent markers do not continue to pose this risk. A search of the literature produced only one evidentiary study in which a group of anesthetists colored IV bags with a permanent marker and tested the contents for alteration 30 minutes after exposure via gas chromatography. This study showed “trivially small” amounts of ink solvents could cross the plastic barrier into the IV solution, and the authors concluded writing on IV bags with soft-tip permanent markers presented no hazard to OR patients. However, many IV therapies require bags to infuse for up to 24 hours. Other than expert opinions encouraging healthcare personnel not to write on bags, there is no additional evidence.

Purpose: The purpose of this study was to quantitatively determine whether ink actually diffuses into intravenous fluids when the bag is written on with a soft tip marker and whether the fluids are more likely to become contaminated with bacteria

Method To investigate whether ink solvents diffuse into a one-liter bag of saline, the lab team used a GCMS system, the 7890A gas chromatography system and 5975C inert XL EI/CI mass selective detector (Agilent Technologies). The column used was specific for low molecular weight compounds characteristic of ink solvents. We used one-liter 0.9% sodium chloride PVC bags (Baxter Healthcare) used on our nursing units. Lab technicians colored a 3” square on each bag with permanent blue or black ink from a Sharpie (Sanford Brands) fine point. Incubation continued at room temperature with samples collected at 3, 6, 12 and 24 hours. At all time points, we obtained control samples from an unmarked bag maintained at room temperature. Technicians processed all samples within an hour following collection. In addition, for microbiological contamination monitoring, RODAC (Replicate Organism Detection and Counting) plates (BD Biosciences) were streaked with an aliquot of each obtained sample. The plates were incubated for 72 hours, 5% CO₂, 37°C and any resulting colonies counted and characterized.

Results: There was no microbial contamination of the contents of the IV bags after 72 hours whether control or intervention. Further, there was no track of ink in the marked bags at any of the measured time points

Conclusions: There is no evidence to support the “sacred cow” of not writing on IV bags using soft tipped permanent markers relative to infection, fluid contamination by ink, or puncture of the bag.

Implications for Nursing New IV therapy policies may be reasonable. Communication with IV bag manufacturers to provide a non-smearing surface for writing is underway.
Excessive Daytime Sleepiness, Sleep Quality and Mood in Community-dwelling Older Women with and without Breast Cancer
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**Background:** Excessive daytime sleepiness is a problem for 10-30 percent of older adults and may impair function. Sleep quality, mood, chronic disease and medication factors may contribute to daytime sleepiness. The study was underpinned by Kathy Lee’s Model of Impaired Sleep.

**Purpose:** To describe the relationship between these variables in women 50 years of age and older with and without breast cancer.

**Method:** This descriptive correlational study was based on a convenience sample of 67 women based on power analysis. The sample included 67 women (mean age 65 years; SD=9.38; 50-90 years), and demographically similar breast cancer (n=32) and comparison (n=35) groups. Daytime sleepiness was assessed using the Epworth Sleepiness Scale, sleep quality using the Pittsburgh Sleep Quality Index, and Mood using the Profile of Mood States. These data were obtained through two telephone interviews approximately one month apart, and scores were summarized and averaged. Chronic disease diagnoses and medication data were obtained through patient interview and electronic medical record review. Descriptive statistics, multiple regression, Pearson’s correlations, and two-sample t tests were performed for analysis of data using NCSS.

**Results:** Mean daytime sleepiness for the total sample was 6.33 (SD=4.34, range 0-23; normal < 9), with similar percents of each group reporting excessive daytime sleepiness (22 vs 20%). Mean sleep quality was 7.08 (SD=4.02, range 1-18; cutoff <5), with a higher percent of the breast cancer group reported poor sleep quality (69% vs 49%). The mean total mood disturbance t-score was 53.82 (SD=10.91, range 39-80+; normal <65), with similar percents of each group reporting high mood disturbance (19% vs 14%). Forty per cent of the total sample took one to three commonly sedating medications (sedatives, opioid analgesics, skeletal muscle relaxants) daily, with a larger percent of the breast cancer group taking more (53% vs 29%). The mean number of chronic disease diagnoses was 2.9 (SD=2.2, range 0-9), with a larger percent of the breast cancer group having four or more diagnoses (50% vs 29%). A multiple regression analysis including sleep quality, mood disturbance, number of sedating medications and chronic disease diagnoses found that in combination this model accounted for 30% of daytime sleepiness (Adj $R^2=0.30$, F[4,62]=7.96, p<0.00005). Mean daytime sleepiness had a small positive correlation with the (poor) sleep quality (0.21), and moderate positive correlations with number of chronic disease diagnoses (0.34) and total mood disturbance (0.49).

**Conclusions:** Women 50 years of age and older with and without breast cancer were similar for mean daytime sleepiness, sleep quality, mood disturbance, number of sedating medications and chronic disease diagnoses. One-third of daytime sleepiness was predicted by a combination of these factors.

**Implications for Nursing:** Improved mood and sleep quality may result in decreased daytime sleepiness, which may promote function and quality of life in this population.
The Impact of Workplace Violence on Emergency Department Nurses: A Pilot Study
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**Background:** Approximately $4.2 million is spent annually due to WPV, with twice as many nurses experiencing work related crimes than any other single profession. The American Nurses Associate stated that exposure to violence directly affects nurse job satisfaction and retention and that developing a safe workplace is essential to solving the growing nursing shortage. While all nurses share the risk of WPV, ED nurses are at high risk.

**Purpose:** This study investigated the impact of workplace violence (WPV) perpetrated by patients to Emergency Department (ED) nurses. The two aims of the study: 1) Describe specific themes found within the experiences of the ED nurse after being assaulted by a patient, and 2) Explore the ED nurses’ satisfaction with their coping mechanisms after the assault.

**Method:** Qualitative study using phenomenology. Purposive recruitment of five RNs from a level 1 ED was done. Sixty to 90 minute semi-structured interviews were conducted and digitally recorded. Verbatim interview transcripts were analyzed using content analysis and constant comparison.

**Results:** One major theme was defined: culture of the ED. ED nurses expressed certain personalities are needed to work successfully in emergency nursing. They love the excitement and frequent changing atmosphere; the lack of stagnancy. They recognize that different types of patients come to the ED and thus do not define violence from the very ill and injured in the same manner as the literature defines violence. Their definition of violence is key to the results of the study. How the nurse reacts and copes after a violent act is dependent on their defining it as a violent act. The only situations that were defined as violent and rate a reaction were if the patient intentionally, with forethought, tried to hurt the nurse. The reactions described were minor, i.e. walking away, being scared, changing the environment, and keep working. One component of the nurse coping was with the environment in the ED, their working relationship with other staff. They support each other, use humor to diffuse stress, and have each other’s back in the workplace.

**Conclusions:** 1.) Individual experiences vary and affect how ED nurses cope with stress. 2.) Common factors are the department, working relationships, available peer support, feelings of safety, and type of patients. 3.) ED nurses do not define violence the same as other areas of nursing. When these findings are considered, it is concluded that ED nurses cope with violence depending on their definition of violence.

**Implications for Nursing:** Future studies should be done to evaluate if the coping is adequate for this high risk area.
Validating the Self Extubation Risk Assessment Tool (SERAT)
Paul Ropp, RN, DNP
Central Arkansas Veterans Healthcare System.

**Background:** Unplanned extubation, whether accidental or patient initiated, can lead to serious consequences. However, understanding of characteristics associated with self-extubation is limited. One method of estimating the risk of self-extubation is use of the Self-Extubation Risk Assessment Tool (SERAT), a risk stratification tool developed to identify patients at risk for deliberate self-extubation.

**Purpose:** The purpose of the project was to validate the SERAT in predicting patients at risk for self-extubation.

**Method:** A convenience sample was obtained and compared to the control group. Using a retrospective review of the medical record, data was entered into the SERAT. Data collection was performed using a cross-sectional research design at one point in time for the representative sample. All information obtained was represented numerically. Thirty-three percent of patients who did not self-extubate were identified by the SERAT as at risk for self-extubation. Thirty-three percent of those patients who did self-extubate were identified as not at risk for self-extubation. 21 patients who self-extubated, and 21 who did not, were studied.

**Results:** Data analysis demonstrated a positive correlation between restraint usage and self-extubation. In this study, 90% of patients who self-extubated had physical restraint in place. The study showed a significant linear correlation between patients who self-extubated and restraint usage, M = 1.09, r² = 0.51, 95% CI [1.14 – 1.04], and F = 0.06, p = 0.05. When data of patients who self-extubated were plotted on the SERAT, 62% fell within the highest sensitivity model, 5% fell within the highest accuracy model, and 33% fell into the no risk for self-extubation area of the chart. Of the patients who did not self-extubate, 43% fell within the ranges of potential for self-extubation. More research is needed to determine if a causal relationship exists between these concepts.

**Conclusions:** The majority of patients, 67%, who self-extubated were predicted to do so by the tool. Further study is recommended to resolve these instances of false negative results.

**Implications for Nursing:** Providing clinicians with a predictive model of which patients are at a higher risk for self-extubation can allow the creation of care strategies to prevent self-extubation. The importance of an accurate tool cannot be overstated in this critical area of care.

*This study was conducted while a Doctor of Nursing Practice student at Samford University, 2011 – 2012.*
A Comprehensive Educational Program to Promote Consistent Scoring of the UAMS Neonatal Feeding Progression Tool Implemented in the NICU

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UAMS Medical Center

**Problem and Purpose:** Upon the final revision of the UAMS Neonatal Feeding Progression Tool (NFPT), it was discovered that bedside caregivers demonstrated inconsistent utilization and scoring of the tool. Survey results yielded needed changes to the NFPT that were completed, and the tool then finalized. The purpose of this Evidence Based Practice (EBP) project is to promote consistent and accurate use of the finalized NFPT through three-part comprehensive re-educational program and post-implementation quantitative analysis of survey results of bedside professionals’ application of the tool in the UAMS NICU clinical setting.

**PICO Format Question:** In NICU patients whose oral feeding skills are assessed utilizing the NFPT, does comprehensive education on the use of the NFPT, as compared to using standard educational methods such as written hand-outs or poster-board presentation, promote more consistent scoring of the NFPT and support accurate communication of infant feeding tolerance amongst the multidisciplinary team.

**EBP Model/Process:** The UAMS EBP Model provided the framework for this evidence based practice project.

**Relevant Literature:** The project team comprised of UAMS registered nurses and NICU rehab specialists reviewed the current literature regarding the implementation of the Oral Feeding Clinical Pathway (OFCP) and other cue-based feeding tools. Systematic reviews of national professional practice guidelines were completed. Current literature supports that utilizing a validated feeding progression scale can provide an accurate reporting method feeding to feeding, caregiver to caregiver, and facilitate appropriate feeding progression. This further supports the OFCP that was implemented in the UAMS NICU in January 2012.

**Method:** The project team completed a post-education implementation survey which included exact questions utilized in the original survey for NFPT implementation. From final survey results the NFPT was revised and finalized. Research team members constructed a three-part re-education program designed to improve the bedside caregiver’s understanding of the NFPT tool and infant feeding behaviors, and promote consistent scoring of the tool. NICU staff was first presented with re-education on each NFPT qualifier to promote clarification of the numerical scores. Secondly, staff received re-education on the principles of the finalized NFPT and common infant feeding behaviors. Thirdly, video examples of infant feeding behaviors were used to show staff how to recognize and score them using the NFPT. Ultimately a randomly selected chart review will be completed to cross reference NFPT scores, patient status, oral feeds, and other documentation in patient medical records. After completion the data will be collated and the results reported.

**Outcomes:** PENDING

**Conclusions and Implications for Nursing Practice:** PENDING
Improving Family-Centered Care Practices in the NICU
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University of Arkansas for Medical Sciences, Arkansas Children’s Hospital-NICU,
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Problem and Purpose: The purpose of this quality improvement project is to evaluate parent perceptions and experiences of family-centered care practices in the NICU. Parent responses will be evaluated via the use of a parent survey prior to and after the implementation of a new visitor management program in the NICU. This will help us determine whether or not there has been improvement in family-centered care practices as a result of this new program.

PICO Format Question: In the Neonatal Intensive Care Unit (NICU) parent population, how does a new visitor management program, compared to the old visitor management program, affect the parents’ perception of family-centered care practices, during their stay in the NICU?

EBP Model/Process: The “Model for Evidence-Based Practice Change” by Larrabee (2009) provided the framework for the implementation of the new visitor management program in the NICU.

Relevant Literature: The review of the literature includes a Randomized Control Trial, qualitative-cross-sectional, quasi-experimental, exploratory, and descriptive correlational studies. The literature was reviewed for specific information about family-centered care programs and practices in the NICU. The review of the literature supports family presence and participation in the care of their infants in the NICU. The literature also points to a relationship between NICU family presence and participation and the recovery and health of the sick neonate.

Method: The location for this quality improvement project is in a 100-bed level III NICU which receives, on average, 850 admissions each year. The NICU parent survey collects information about parents’ first impressions, the NICU environment, perception of care, communication and relationships with the health care team, as well as unit based and hospital services. The survey is given out to parents during the infant’s hospital stay. The parents are informed that the survey is voluntary and responses are anonymous. The parents’ survey responses are entered into a password protected database.

Outcomes: Parent survey responses were collected and analyzed for three months prior to and after the implementation of a new visitor management program. Survey results indicated that the overall positive responses for each area measured improved about five percent with the exception of the perception of care. Negative responses also increased slightly, however indifferent responses decreased, and the negative responses are attributable to factors other than the new visitor management program.

Conclusions and Recommendations: The parent survey responses indicated that the new visitor management program has made a limited positive difference in the parents’ experience and perceptions of family-centered care in the NICU. A major limitation in this quality improvement project is that we were not able to perform pre and post measurements using the same parent population, as well as internal factors beyond the scope of a visitor management program.

Implications for Nursing Practice: This quality improvement project is just the beginning of a renewed effort to foster family-centered care in the NICU. Ongoing review of NICU Parent Survey responses will provide information, from the parents’ perspective, of other areas which need focus and interventions to provide improved family-centered care practices in the NICU.
Quality Improvement on Non-Invasive Temperature Measurement Devices in Ambulatory Surgery and the Post-Anesthesia Care Unit
Alissa Green, MSN, RN-BC
Arkansas Children’s Hospital

Problem and Purpose: During routine patient care in the Post-Anesthesia Care Unit (PACU), nurses noted that many patients presented to the PACU with hypothermic tympanic or axillary temperatures. Additionally, initial PACU tympanic temperature measurement varied markedly from the final axillary temperature obtained in the operating room (OR). The investigator conducted an evidence-based literature review on the accuracy of non-invasive temperature-measurement devices.

The purpose of this project was to assess quality improvement since temperature-measurement device change implementation in the Ambulatory Surgery Center and Post-Anesthesia Care Unit. Based on literature findings, the nursing department discontinued the use of tympanic thermometers in June 2012 and adopted the use of digital axillary thermometers used throughout the organization.

PICO Format Question: In perioperative patients, did the implementation of standardized temperature measurement devices decrease the incidence of documented perioperative hypothermia?

EBP Model/Process: The Iowa Model provided the framework for this QI project.

Relevant Literature: The investigator reviewed the literature from medical/nursing journals and clinical practice guidelines. The evidence defines perioperative hypothermia as a temperature below 36.0 °C. ASPAN recommends that the same route of temperature measurement be used throughout the perioperative period. Clinically available “near-core” temperatures are easily obtained in perianesthesia patients via tympanic, oral, rectal, or axillary routes.

Method: Electronic medical records from 3 months in 2011 were audited during a retrospective chart review to obtain perioperative temperature reading documentation from 150 pediatric and adult patients. Prospectively, an additional 150 records were randomly audited for 3 months in 2012 after the temperature device change was initiated.

Outcomes: The retrospective medical records revealed that a significant number of perioperative patients were hypothermic. Prospective review of the additional 150 records indicated that significantly less patients were hypothermic during the perioperative phase.

Conclusions and Recommendations: The data demonstrated a significantly less number of hypothermic patients after implementation of axillary temperature readings from a standardized digital thermometer. This study did not assess whether external heating devices were utilized perioperatively. However, OR temperature readings were obtained from sites and measurement devices differing from those used in this study. These results suggest that improvements should be made to standardize the temperature measurement devices and routes in the perianesthesia setting.

Implications for Nursing Practice: Replication of research studies to standardize temperature measurement devices in the perioperative setting would improve consistency in monitoring perioperative hypothermia. Furthermore, determining if standardized prewarming and active warming interventions are effective for hypothermia prevention in certain populations.
Evaluation of Intravenous High Dose Ascorbic Acid after Severe Burn Injury: A Retrospective Review
Susan Brown, RN, CCRN, Anna Rinewalt, MD, Kendrea Jones, Pharm. D., BCPS; Arkansas Children's Hospital

Background: The initial management of a major thermal injury (30 percent total body surface area burn or greater) involves administering adequate fluid volume to maintain organ perfusion and prevent edema formation. Thermal injury is associated with a systemic capillary leak that usually seals within 18 to 24 hours with appropriate fluid resuscitation. The end points for resuscitation are debatable with hourly urine output being an established parameter for guiding fluid management along with hemodynamic stability. For over a decade, researchers have focused on the role that high-dose ascorbic acid might play in reducing fluid requirements and tissue edema. The reduction in tissue edema during resuscitation reduces the total amount of fluid administered, resulting in less pulmonary complications. Previous studies have not evaluated whether the time from injury to initiation of ascorbic acid impacts resuscitation volumes, lung injury, incidence of acute kidney injury, and pneumonia.

Purpose: The purpose of this retrospective review is to determine if the time from severe burn injury to administration of intravenous ascorbic acid may impact clinical outcomes and total amount of resuscitation fluid required.

Method: Charts of patients >18 years of age who received high dose ascorbic acid post thermal injury between 2009 and 2012 were reviewed. Patients were divided into two groups based on whether initiation of high dose ascorbic acid occurred in less than 8 hours (group 1) or was delayed by 8 hours or more (group 2). We examined patient demographics, time to initiation of ascorbic acid from time of injury, %TBSA, total resuscitation fluid volume received, and urine output. Hospital length of stay, ventilator days, need for dialysis, and 30-day mortality were also collected.

Results: Fourteen patients were assigned to group 1 and 9 were assigned to group 2 based on time to initiation of ascorbic acid. There was no difference between the groups with respect to age (51 ± 20 yrs vs 44 ± 15 yrs, p = 0.4) or %TBSA (37 ± 11% vs 40 ± 20%, p=0.7). Time to initiation of ascorbic acid in group 1 was 5.5 ± 1.7 hrs and 10.6 ± 2.1 hrs for group 2 (p < 0.0001). Fluid requirements in the first 24 hours were 3.6 ± 1.9 mL/kg/%TBSA in group 1 and 4.7 ± 2.5 mL/kg/%TBSA in group 2 (p=0.2). No significant differences were found in fluid requirements at 72 hours, ventilator days or length of stay. Three patients (13%) required dialysis during their hospital stay; all were in group 1. Three patients died in group 1 and 2 patients died in group 2 (p =1).

Conclusions: Although not statistically significant, patients in which ascorbic acid was initiated 8 hours or more from injury received approximately 25% more fluid than those who received it sooner. No difference in urine output, ventilator days, or length of stay was found. Further research with a larger patient population is needed to determine if a prolonged time to initiation impacts other outcomes. Additional research is needed to determine if the use of high-dose ascorbic acid increases the risk of acute kidney injury.

Implications for Nursing: Determining the impact of time to initiation of high-dose ascorbic acid after severe burn injury may help determine the need for timelier initiation by emergency room personnel prior to transfer to a burn center as well as reinforce the importance of timely administration to burn staff.
Improve Blood Glucose Management in the Acute Care Setting: Utilization of the Remote Automated Laboratory System (RALS) Benchmarking of Glycemic Control
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St. Vincent Health System

Problem and Purpose: The purpose of this evidence-based practice (EBP) project was to establish benchmarks for glycemic control within the acute care setting.

PICO Format Question: How can the implementation of glycemic benchmarks assist in determining the state of glycemic control within the acute care setting?

EPB Model/Process: The Iowa Model of Evidence Based Practice to Promote Quality Care provided the framework for this evidence-based practice project.

Relevant Literature: A team of physicians, nursing leaders, and bedside nurses reviewed the literature (including Randomized Controlled Trials, systematic reviews, and national professional practice guidelines) and found evidence that automated point-of-care (POC) blood glucose (BG) systems supported efforts in evaluating and monitoring glycemic control. By utilizing RALS data, hospitals can compare glycemic control data to national aggregate data in addition to identifying interdepartmental and organizational trends.

Method: The interdisciplinary team reviewed inpatient POC-BG results captured by RALS prior to incorporating a glucose quality control measure and compared the POC-BG metrics with national RALS benchmarking reports. Real-time and retrospective analysis of glycemic control reported quarterly and annual hypoglycemia and hyperglycemia prevalence within all inpatient areas. Benchmarks from RALS defined hyperglycemia (BG > 180 mg/dL) and hypoglycemia (BG < 70 mg/dL) to establish hospital-wide glucometrics as a means to determine efficacy of glycemic control. We evaluated prevalence of hyperglycemia and hypoglycemia within a defined population group (all inpatient POC blood glucose results). Based on our facility’s finding, house-wide benchmarks of glycemic control were established. Glycemic prevalence reporting and established benchmarks are presented and discussed by the Performance Improvement and Patient Safety Committee (PIPSC).

Outcomes: The RALS reporting enables users to review glucometrics comparative to a national benchmark of data extracted from more than 576 U.S. hospitals and 175 million finger sticks. Inpatient glucometrics were analyzed and compared to the RALS national aggregate data. Hyperglycemic prevalence within national inpatient areas was 31.49% for the RALS aggregate and 32.1% for our population group. RALS benchmark for hypoglycemic prevalence was 3.09% for all inpatient areas and 2.45% for our facility’s prevalence. Benchmarks for our facility were based on RALS data analysis for all inpatient areas. Through PIPCS, overall glycemic control is evaluated and root cause analysis is performed in areas demonstrating poorer glycemic control.

Conclusions and Recommendations: From our data, we were able to determine our current state of glycemic control relative to national data. Within our facility, benchmarking is a vehicle for promoting safe practice management among all healthcare providers. Consistent analysis of glycemic control within critical care and non-critical care areas has aided in the implementation of new EBP order sets.

Implications for Nursing Practice: By analyzing the state of glycemic control within a healthcare facility, data systems such as RALS provides objective comparisons of inpatient glycemic control among hospitals and patient care areas. Utilization of data systems will provide hospitals ways to determine the success of quality improvement initiatives such as order set design and implementation.
Posters
Creation of a framework for nurse education and professional development with integration of the Association for Nursing Professional Development (ANPD)
Scope and Standards of Practice
Tammy Webb, MS, RN, NE-BC, Barbara Johns, BSN, MA, RN; Lametria Wafford, MNSc, RN; Arkansas Children's Hospital

Problem and Purpose: The purpose of this nursing administrative initiative was to advance the strategic plan and provision of nursing care through a development of a new framework for nurse education and professional development based on national standards.

PICO Format Question: Can a newly designed framework for nurse education and professional development based on national standards achieve the desired outcomes defined by a nursing strategic plan to bridge education and professional practice, achieve consistency in educational approaches, promote shared decision making and provide a foundation for educational outcome measurement?

EBP Model/Process: Melnyk Fineout-Overholt provided the framework for the evidence based practice model and the ANPD provided the national scope and standards of practice for nursing professional development.

Relevant Literature: The project team was comprised of both centralized and decentralized educators, nurse directors and the Director of Professional Practice and Clinical Education. The team reviewed the literature extensively to determine best practices for the development of education models, both centralized and decentralized, in order to implement an evidence based model in support of nurse education and professional development. The limited results of the literature review led to a peer list-serve search for successful education models and organizational structures. The conclusion of the review was that most successful education models were integrated, both with centralized and de-centralized components present with a matrix organizational structure.

Method: In developing the new structure, the team wanted to embody the organization’s Model of Care which is Patient and Family Centered Care defined as care that is compassionate, respectful, comprehensive, collaborative, and individualized and the Professional Practice Model which supports the Model of Care through evidence-based practice, interdisciplinary teamwork, professional development, shared decision-making, and quality. This was the foundation and center for the development of the framework for nurse education and professional development.

Outcomes: The newly developed framework represents a refined foundation from which centralized and decentralized education initiatives are guided by a newly formed education council, provides a consistent method for dissemination of just in time education through departmental education rounds, an organizational standardized approach to quarterly competence requirements and a newly adopted theory based method for education evaluation. Additional results include the implementation of a professional career map based on the framework to promote retention through succession planning.

Conclusions and Recommendations: When challenged with redesigning the educational structure or model in order to achieve goals set forth by the organization’s nursing strategic plan, the Clinical Education Department operationalized the ANPD scope and standards of practice to provide the framework for a new integrated education model. It supports centralized and decentralized education initiatives guided by a team of educators and unit based nurse leaders.

Implications for Nursing Practice: This structure is realized through a process of education affecting change, behaviors, and decisions of others. This new structure has become deeply embedded into the culture of professional excellence, providing a strong foundation from which all educational programs and professional development emanates.
How To Prevent Your Crew From Jumping Ship  
Susan Erickson, RN, MNSc, BC-NA, CHCR  
UAMS Medical Center

**Purpose (or Problem):** The purpose of this evidenced-based practice (EBP) project was to examine cost-saving measures to decrease turnover and increase retention.

**PICO Format Question:** In tenured nurses without experience at an academic medical center does a specifically designed on-boarding program compared to a standard on-boarding process result in higher retention and lower turnover?

**EPB Model/Process:** UAMS EBP Model

**Relevant Literature:** The project team comprised of Staff Educators, Nurse-Clinician, Staff Nurse, Media Specialist and Nurse Recruiter reviewed “Welcome Aboard Retention Strategies” presented at the 2009 National Association for Healthcare Professionals ‘Best Practices’ session in addition to the Review of Literature below to compare a specifically designed On-boarding program vs. generic On-boarding programs.

2) Tolan, Tim (2009). On-Boarding - a personal experience: an employee’s first day is a one-time chance to help them hit the ground running. Healthcare Informatics, 26 (7), 54.

The results from the past two years Exit Interview data provided the justification to implement a specifically designed On-boarding program to fit the UAMS culture.

**Method:** The project team met for a six (6) month period to design the pilot “On-boarding” program to address the high turnover rate associated with experienced nurses who had between 5-10 years of experience but did not complete the first year of employment. Design elements incorporated cultural recognition to customize a “cruise” theme and 5-month On-boarding experience including Magnet principles. A “Cruise” log was also presented to ‘Cruise Directors’ and ‘New Passengers’ outlining program expectations, monthly itinerary (goals) and interdisciplinary resources. Marketing and promotion of this project was presented to ‘key’ stakeholders prior to implementation.

**Outcomes:** Pilot project included 18 RNs from Med/Surg, Maternal/Infant and ICU areas. Retention data reported after one (83%) and two (66%) years represented a cost-savings of $900,000 in turnover cost.

**Conclusions and Recommendations:** Evaluation of the pilot program indicated increased resources would be required to manage this specifically designed On-boarding program campus-wide. Decision to decentralize program to the unit level would provide ownership and management of resources and staff. Upon evaluation, ‘key’ elements were identified and will be incorporated into department’s revised Preceptor Program presented by unit-based Nurse-Clinicians now referred to as Advanced Practice Partners.

**Implications for Nursing Practice:** Personalized On-boarding programs specifically designed for a target demographic can be a cost-effective tool for decreasing turnover while increasing retention.
Qualitative assessment of Nursing perceptions related to implementation of Pet Therapy in the Antepartum patient population
Marie Patterson, BSN, MA, RN-BC; Kara Thompson, RN, Diploma
UAMS Medical Center

Problem and Purpose: The purpose of this evidence-based practice (EBP) project was to examine nursing perception related to implementation of Pet Therapy in the antepartum patient population focusing on interruptions in patient care and effectiveness of Pet Therapy interventions.

PICO Format Question: For nursing staff working on the antepartum unit does Pet Therapy interfere with nursing care delivery and does the nurse perceive the intervention as effective.

EBP Model/Process: The nursing staff will complete a survey utilizing the Likert scale which will provide the framework for this evidence based project.

Relevant Literature: The project team comprised of Perinatal nurses, OB physicians and research assistants performed a literature review utilizing EBSCO, Up-to-date, and CINAHL. Literature was found to support the utilization of Pet Therapy in child, geriatrics and patients with chronic heart disease. Little to no evidence was found supporting Pet Therapy in the antepartum population.

Method: The project team compiled a survey utilizing the Likert scale in which all Perinatal staff nurses who care for antepartum patients receiving Pet Therapy will be issued to assess their perceptions related to implementation of Pet Therapy regarding the antepartum population they have cared for. The survey will be offered at the beginning of the evidence-based practice, during, and after the study is complete.

Outcomes: Data is currently being compiled at this time.

Conclusions and Recommendations: Despite the benefits of this therapy observed and documented in children, geriatric and patients with chronic heart failure, the benefits to hospitalized antepartum obstetric patients are currently unknown. Furthermore, the counterpart of the nurses and their perceptions while caring for and implementing some of these Pet Therapy interventions are not known either. The purpose of this evidence-based practice is to conclude whether nursing perceptions regarding Pet Therapy are positive or negative in the antepartum population.

Implications for Nursing Practice: Additional research will illuminate whether nursing perceptions related to the implementation of Pet Therapy in the Antepartum patient population are negative or positive.
Advancing Quality in an Ambulatory Setting through Collaborative Partnerships
Devin Terry, MSN, RN, ACNS-BC; Deborah A. Johnson, M.Ed., RNP, RN-BC; Cathy Buzbee, MHA, BSN, RNP, OCN
UAMS Medical Center Ambulatory Services

Problem and Purpose: The purpose of this evidence-based practice (EBP): Acquaint participants to the limitations identified in the Ambulatory setting involving Performance Improvement Initiatives related to Communication, Collaboration and Connection between the ambulatory settings in an academic medical center.

PICO Format Question: In the ambulatory setting at an academic medical center, does having a CNS dedicated to QI compared with usual staffing of no CNS for QI improve Performance Improvement Initiatives related to Communication, Collaboration and Connection?

EBP Model/Process: UAMS EBP Model


Method: Development of a Clinical Nurse Specialist role in Ambulatory with a Quality Improvement focus. Three primary areas of change: Patient Family Centered Care, Professional Nursing Practice and Organizational systems, with a major focus on organizational systems approaches.

Outcomes: Having a CNS dedicated to QI in the ambulatory setting resulted in improved communication between Inpatient and Ambulatory Services, development of two Ambulatory Councils, and frontline staff representation from ambulatory areas on the UAMS Professional Nursing Organization shared governance councils.

Conclusions and Recommendations: While there is evidence of improvement there is still a need for increasing the awareness and participation of staff members in our Council structure; improvement in divisional communications; employee recognition and team development.

Implications for Nursing Practice: While there is evidence of improvement there is still a need for: Increasing the awareness and participation of staff members in our Professional Nursing Council structure, Improvement in divisional communications, and Employee recognition and team development.
Central Line Bundle: Preventing Catheter-Related Bloodstream Infections
Sherita Richardson RN, BSN; Crystal Holmes, RN
Central Arkansas for Veterans Health Systems

Significance: Catheter-related bloodstream infections (CRBIs) are a worldwide concern, and many hospitals are aiming for a zero tolerance. The use of central line devices are becoming more prevalent and are associated with major health-related complications. Central lines require daily monitoring and preventive maintenance to decrease and/or prevent CRBIs. If the most current evidence-based practices are compiled into a bundle, it would promote compliance and contribute to the prevention of CRBI rates.

Purpose (or Problem): Veterans at our facility expect that risks associated with their care are avoided or prevented, and contribute to them functioning at their optimum level. In order to allow maximum growth and development some Veterans require central venous access. The use of central lines are becoming more prevalent and increasing the potential for widespread bloodstream infections. Unfortunately, CRBIs are a preventive and major concern that contributes to increasing morbidity and mortality rates. The preventive risks associated with CRBIs fails to meet the expectations of the Veteran. CRBIs also have a negative impact on the health of the patient, increase hospital length of stays, and cause financial consequences relating to reimbursement. The use of a central line bundle would provide nursing interventions that would provide consistent, repetitive skills for the care and maintenance of each central line catheter. This bundle would adhere to the best practices and guidelines from the Center for Disease Control (CDC) and the Institute for Healthcare Improvement (IHI) with the goal of eliminating CRBIs.

PICO Format Question: In hospitalized adult Veterans, is there sufficient evidence to suggest the use of a central line bundle as opposed to unbundled interventions decreases catheter-associated bloodstream infections?

Search Strategy and Quality Screening: The literature search process used EBSCO, Ovid, CINAHL, and Cochrane library for publications between 2008-2013. Search terms used to locate the best literature were central venous catheter, central venous device, central venous line, bundle, prevention, infection rates, catheter-related bloodstream infections, using the Boolean operator AND. Quality screening included articles that provided adequately defined methods that yielded reliable and valid results. The article types were limited to randomized control trials (RCTs), meta-analyses, and systematic reviews.

Evidence: The initial search provided 541 studies but was decreased to 67 by limiting the search to the English language and excluding articles pertaining to children, implanted ports, and hemodialysis catheters. Five studies were carefully reviewed in relation to this phenomenon. The studies were further decreased by limited the studies to the medical-surgical and ICU populations and excluding outpatient studies. Then, the abstracts and titles of each study were reviewed to determine if it was relevant to my patient population.

Synthesis of Evidence: The articles that were appraised indicated that patients who received the bundle interventions had an overall decrease in CRBSIs. The extensive literature reviews reported clinical success for a zero infection rate tolerance and contributed to physician-nurse collaboration. The financial costs, length of stays, and infection rates supported the implementation of a central line bundle. The IHI developed guidelines and key components for the bundle. Overall, the retrieved evidence from the appraised studies, CDC, and IHI provides evidence and guidelines for the use of a central line bundle.

Conclusions and Recommendations: Implementing a central line bundle for Veterans should improve infection rates; therefore, it is recommended that further investigation and pilot studies are initiated.

Implications for Nursing Practice: If the VA considers adapting the central line bundle, there may be a concern about the bundle components and compliance. Strategies to implement the bundle interventions should be included in hospital policies, guidelines, and central line insertion/maintenance procedures. Hospitals should review and update their policies and provide self-study modules to address these issues. Strategies to implement the bundle interventions should be included in hospital policies, guidelines, and central line insertion/maintenance procedures.
Don’t let SPECI-Man escape your reach without his cape!

Tiffany Griffin, RN,
Burn Center, Arkansas Children's Hospital (ACH)

Problem and Purpose: Improperly labeled specimens negatively impact our patients by increasing the risk for infection, pain, and anxiety. It can cost the patient up to an additional $712 per episode and potentially causes sentinel events. The purpose of this project is to eliminate mislabeled specimens in the Burn Center.

PICO Format Question: In hospitalized Burn patients, how does a required second verifier of lab specimens affect the frequency of mislabeled lab specimens compared with a single verifier?

EBP Model/Process: The EBP process developed by Melnyk and Fineout-Overholt was used to guide this project.

Relevant Literature: Relevant research literature was reviewed and staff were interviewed to determine the history of this problem and possible methods to resolve the problem. The literature stated that significant changes in improperly labeled lab specimens were documented after a verifying tool was utilized by nursing staff. Methods for verification ranged from a handheld scanning tool to others used a second person to verify the specimen.

Method: The project team planned a before and after design using Safety Tracker (a safety event tracking system) as the tool to determine frequency of mislabeled specimens. All staff received education regarding appropriate labeling of labs and new changes that were to occur. SPECI-man, a lab tube character, was used as a reminder to nurses to label the lab specimen by making reference to SPECI-man's cape enabling him to produce excellent and accountable results. The project team decided use of a second STAFF verifier would suffice and created a lab caddy to encourage the flow of lab draws in the mornings. The team also decided that having a Clinical Nurse Specialist (CNS) review the incidents will encourage staff accountability. A root cause analysis was completed on any non-compliant events to guide further education. Safety Tracker was monitored by the CNS and results displayed on a board for all staff and visitors to see.

Outcomes: Data analysis for the six months prior to implementation revealed an average of 2.8 mislabeled specimens per month compared to 0.25 mislabeled specimens during the four months since implementation. One case of a mislabeled specimen occurred after implementation of the above mentioned changes. Therefore, it was determined that having a second verifier assisted with the decrease in the frequency of mislabeled specimens in the Burn Center.

Conclusions and Recommendations: Having a second nurse verify a lab specimen is not always an option, so the Burn Center elected to have a second staff member verify the specimen’s label. This increased compliance among nurses, which significantly decreased the occurrence of mislabeled specimens. Recommendations include requiring a second verifier for all lab specimens in all areas that collect specimens. This will provide a safer environment for patients, decrease the frequency of central line accesses or peripheral sticks, and decrease the opportunity for infection, pain, and anxiety related to lab draws. Providing appropriate labeling of the specimens will also decrease the opportunity for sentinel events related to treating a patient for the wrong lab results or neglecting to treat a patient related to erroneous lab results.

Implications for Nursing Practice: While the effects of this Quality Improvement project will be more apparent after 6 months and 1 year, the preliminary data shows potential to drastically decrease the frequency of mislabeled lab specimens. Changing the policy at this institution to include a second verifier, and providing convenient and portable collection supplies may decrease the opportunity for mislabeled specimens to occur. Mislabeled specimens are Never Events and ACH's goal is to eliminate them.
The Power of Words: Redesigning Change of Shift Report on a Medical-Surgical Unit
Donna Roberson, RN and Shannon Fesler, RN, MSN
RN Advisory Group, Central Arkansas Veteran’s Healthcare System.

Problem and Purpose: The primary objective of a change of shift report is to provide accurate information about patient’s care, treatment services, current condition and any recent or anticipated changes. Previously, the medical-surgical unit utilized a taped report which did not allow for questions or communication between oncoming RN and off-going RN and were lengthy, leading to overtime usage and poor communication, increasing risk for sentinel events, near misses, and dissatisfaction among nursing staff.

PICO Format Question: For staff nurses on a medical surgical unit, do walking handoff reports as opposed to taped reports improve nursing satisfaction, decrease near misses, and decrease overtime costs?

EBP Model/Process: The Ottawa Model of Research Use was used as the framework for this evidenced based project.

Relevant Literature: The review of literature identified the following handoff techniques: Bedside, taped, written and real-time oral transmission. Studies indicated a verbal report followed by bedside rounds is far more effective than other methodologies. Additionally, mid-shift huddles keep communication flowing and provide opportunity for seeking assistance.

Method: A baseline survey was conducted of handoff methodology and satisfaction of the process including the oncoming nurses receiving a verbal report from the off going staff followed by RN to RN bedside rounds at the beginning and end of pilot study. Staff documented near misses avoided by using verbal report with bedside rounds.

Outcomes: Post pilot survey results revealed that walking handoff reports had a positive impact on the opportunity to ask questions, review of patient information, pharmacy issues, and decreased the time needed to give report.

Conclusions and Recommendations: Effective communication is imperative to provide safe and effective patient care. Walking report promotes nurse patient relationship, improves accuracy of patient identification, provides immediate visualization of patients, and allows for early identification of problems, preventing near misses. Verbal reports also decrease overtime usage by shortening length of report and increase nursing satisfaction.

Implications for Nursing Practice: Improved communication between ongoing/off going shifts is imperative for continuity of care and patient safety. Additional research will target prevention of “near misses” and improved patient safety with direct visualization from staff during report.
Improving Cardiac Arrhythmia Recognition and Evaluation in Diagnostic Labs
Arthur Anderson, RN
Central Arkansas Veterans Healthcare System

Problem and Purpose: Cardiac arrhythmias may be lethal, and misdiagnosis could result in a delay in treatment, which could have adverse outcomes for our veterans including death. Improve recognition of cardiac arrhythmia and diminish delay in treatment.

PICO Format Question: In patients undergoing moderate level sedation does use of 5-lead ECG monitoring vs. standard care improve recognition and treatment of cardiac arrhythmias?

EPB Model/Process: The Iowa Model of Evidence Based Practice to Improve Quality Care

Relevant Literature: The goals of ECG monitoring range from basic ECG rhythm interpretation to the diagnosis of complex cardiac arrhythmias. With 5-lead capability, nurses can monitor two leads simultaneously. Missing the diagnosis of ventricular tachycardia in favor of a diagnosis of supraventricular tachycardia with aberrant conduction can result in unfavorable outcomes. Lead V1 is the most useful lead in the critical differentiation between ectopy and aberrancy. A 5-lead monitoring system is required to monitor V leads. MCL1 (modified chest lead) may differ in QRS morphology as compared to V1 and should be used only when a 5-lead system is unavailable.

Method: The leader worked with the critical care nurse educator to provide an ECG interpretation refresher course, which discusses cardiac arrhythmias and treatment utilizing ACLS guidelines. This ensured all staff felt comfortable with the additional monitoring abilities and could demonstrate accurate ECG interpretation and treatment modalities for each arrhythmia. We used an arrhythmia adverse event database developed by the team leader to document the occurrence of arrhythmias identified during a procedure utilizing 5-lead cardiac telemetry monitoring and determine if a procedure was aborted due to the arrhythmia. The team leader monitored lead placement of random cases to verify the implementation process.

Outcomes Monthly audits assessed staff compliance with ECG interpretation and ensured accurate rhythm interpretation. The staff complied with the 5-Lead process at 100% of audit checks. The compliance level has increased each month with a rate of 75% for September 2012 and interpretation accuracy is 100%. during an endoscopy procedure an arrhythmia occurred with Lead II showing a period of Paroxysmal Arial Tachycardia; however, Lead V1 accurately detected the patient having a four-beat episode of Ventricular Tachycardia. The RN administering the IV conscious sedation accurately recognized and identified the arrhythmia and notified the Gastroenterologist performing the procedure.

Conclusions and Recommendations: The 5-lead system is beneficial in identifying arrhythmias that may require a procedural halt. The Medical Executive Board at Central Arkansas Veterans Healthcare System approved the implementation of 5 lead EKG monitoring in all procedure areas within CAVHS where EKG monitoring occurs.

Implications for Nursing Practice: The use of five-lead monitoring systems in diagnostic labs is an important component of patient safety in areas using moderate level sedation.
Use of a Concept Map to Improve Critical Thinking Skills in New Graduate Nurses
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Arkansas Children's Hospital (ACH)

Problem and Purpose: The transition to practice period for new nurses is a critical time for development of nursing skills and socialization to the profession. In response to recommendation 3 of the IOM Future of Nursing report and as part of a nurse residency pilot program, a concept map template was developed. The purpose of this evidence-based practice (EBP) project was to improve the critical thinking skills and ability to synthesize knowledge from multiple sources of a Transition to Practice Group in an intensive care unit using a concept map template.

PICO Format Question: Does the use of a concept map template improve the critical thinking skills and ability to synthesize knowledge from multiple sources in transition to practice staff?

EBP Model/Process: Melnyk & Fineout-Overholt Model

Relevant Literature: A staff nurse and clinical educator from the Transition to Practice Pilot unit reviewed the current and relevant literature on concept and logic maps. The literature showed that “using a logic model in nursing adds dialogue, context, time, and reflection: these four elements of logic models are also core elements of the dynamic critical thinking process necessary for nursing practice” (Forneris, 2004). Based on the literature, the concept map was modified to meet the transition to practice objectives.

Method: The concept map was distributed to the Transition to Practice Pilot Group. Topics were selected based on their interest and exposure to various disease processes during the orientation period. Topics included: Deep Vein Thrombosis (DVT), Hidradenitis Suppurativa, Stevens Johnson Syndrome and Toxic Epidermal Necrolysis Syndrome (TENS), Targeting Emotional Healthcare in Burn Patients, Disseminated Intravascular Coagulation (DIC) and Heparin-Induced Thrombocytopenia (HIT). Once the transition to practice pilot group completed their project, each one presented the information to the leadership team and peers. An electronic survey was sent to the transition to practice pilot group to assess if the concept map assisted to improve critical thinking skills, and ability to synthesize knowledge from multiple sources.

Outcomes: There were five staff members eligible to complete the survey and four respondents. Survey results indicated 100% of staff improved ability to synthesize knowledge from multiple sources, which included professional development classes, burn unit classroom, simulation lab, critical care classes, and peer support sessions. 50% of staff strongly agreed and agreed critical thinking skills were improved. Additionally, 75% of staff strongly agree and agree project assisted to learn how to navigate organization’s systems, tools, and software.

Conclusions and Recommendations: The concept map improved critical thinking skills and staff members ability to synthesize knowledge from multiple sources, increase knowledge and skills on researching pertinent information related to topics, navigate the organization’s systems, tools, and software, and increased confidence to present in unit grand rounds. The concept map template will be included in the unit orientation process and used for other presentations in the unit. Two other units plan to pilot the concept map template.

Implications for Nursing Practice: The concept map template enabled the new graduates to improve critical thinking skills, synthesize knowledge from multiple sources, and develop clinical and grand round presentation skills, and function at a safe and quality level of practice.
Radiofrequency Ablation for Treatment of Barrett’s Esophagus
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UAMS Medical Center

Clinical Significance: Barrett's Esophagus is a known precursor of esophageal cancer. Therefore, it is extremely important that these patients receive endoscopic surveillance with biopsies for early identification of dysplastic changes of the intestinal metaplasia followed by effective treatment to avoid the onset of esophageal cancer.

Statement of the Problem (or Purpose): Barrett’s Esophagus is a condition in which the normal epithelial cells in the distal portion of the esophagus are replaced by columnar epithelial cells. Microscopic examination of these cells reveals intestinal metaplasia. The purpose of this poster is to explore the etiology of Barrett’s Esophagus, current treatment options, and to discuss the role of the nurse before, during, and after treatment with Endoscopic Radiofrequency Ablation.

PICO Format Question: Among patients with Barrett’s Esophagus, is radiofrequency ablation comparable to other treatment modalities in disease reduction, cost, and complications?

Literature Search Strategy: Our literature search targeted professional practice guidelines and studies of RFA.

Literature Search Results & Evidence: There are several options available to treat Barrett’s Esophagus including mucosal resection, argon plasma coagulation, chemical ablation, and cryotherapy. While research has shown them to be highly effective, there are also significant side effects, discomfort, and complications associated with some of them. Endoscopic Radiofrequency Ablation is the newest treatment available.

Evidence from Clinical Case: We have performed 29 RFA procedures on 10 different patients for Barrett’s. Each patient treated has demonstrated disease regression and 7 of the 10 have been cleared of Barrett’s as demonstrated by followup biopsy. There have been no major complications.

Comparison and Synthesis of Evidence: Both the literature and our cases demonstrate that RAF has low a low rate of complications, is cost effective, and decreases patient disease.

Conclusions and Implications for Nursing Practice: To date, studies have shown a nearly 100% cure rate with minimal side effects, discomfort, and complications. However, more studies need to be conducted (and are under way) to discover the long term outcomes of patients who are treated with this option. Understanding of treatment options and protocols for patients undergoing treatment with Radiofrequency Ablation will enable nurses to provide the proper support and teaching to the patient and family.
Growing our Young: Transitioning New Graduate Nurses into Burn Intensive Care Nurses  
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Arkansas Children's Hospital Burn Center

Problem and Purpose: Our critical care burn unit was experiencing a decreased nurse retention rate (60%) related to an unstructured hiring and orientation process. The purpose of this evidence-based practice (EBP) project was to examine hiring and orientation practices and focus on retention, nurse satisfaction and enhancement of critical thinking skills in new graduate nurses.

PICO Format Question: Does a structured hiring and orientation process have a positive effect on retention and satisfaction of new graduate nurses (NGN) in a Burn ICU?

EBP Model/Process: The EBP process developed by Melnyk and Fineout-Overholt was used to guide this project.

Relevant Literature: A comprehensive literature review was conducted, including data from the National Council of State Boards of Nursing, the Journal for Nurses in Staff Development and Nursing Economics. The evidence suggested that the readiness of NGN’s to function in intensive care units is in question and more structured orientation programs could increase retention rates and improve critical thinking skills. Retention and satisfaction starts with hiring nurses who are compatible with caring for burn patients, which often requires continuous critical thinking in a fast paced environment as evidenced by the multiple body systems affected by burn injuries.

Method: The unit Clinical Educator used information from various models from the literature to develop a more structured process for onboarding of NGN’s. A standardized interview process, including clinical practice scenarios and equipment recognition, narrowed the pool of applicants. Traditional orientation consisted of 12 weeks. In order to better prepare the NGN for a highly specialized area, this was extended to 16-18 weeks. Several new learning elements were introduced to improve critical care knowledge, apply critical thinking skills, and encourage teamwork. NGN’s attended a 10 day critical care course and were required to pass a final exam. The NGN also participated in an 8 hour simulation lab, where several burn specific scenarios were presented using state of the art electronic mannequins. Finally, the NGN’s are required to synthesize the knowledge to review and present patients in daily physician/nurse multidisciplinary rounds.

Outcomes: The burn unit NGN retention rate increased to 80% with this new process. One NGN stated that the interview scenarios influenced her to accept the job offer and the questions “showed the unit was really looking for competent nurses” and challenged the applicant to use critical thinking skills. Self- evaluation scores and personal feedback demonstrated the new elements of the NGN orientation contributed to growth as an RN. “I feel everyday (of orientation) was vital in forming me into a critical care nurse.”

Conclusions and Recommendations: The NGN’s had an overwhelming positive response to their orientation process, which helps increase satisfaction and retention. The new orientation elements remain part of the orientation process with continued evaluations for improvements.

Implications for Nursing Practice: The additional elements and the time invested in an orientation program that promotes critical thinking and professionalism, not just basic nursing skills, helps to retain compatible, competent and confident NGN’s in the Burn Unit.
Preventing Healthcare Associated Infections in Burn Patients: A Multidisciplinary Prevention and Monitoring Program

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Arkansas Children's Hospital Burn Center

Problem and Purpose: Our Burn Unit experienced a significant increase in the incidence of healthcare associated infections (HAI) including a total of 18 in the first four months of 2012. Burn patients have been found to have higher rates of sepsis (8-43%) and sepsis-related mortality (23-65%) than trauma or general ICU patients. Although the Center for Disease Control and Joint Commission has developed core measures to prevent HAI's, none specifically address prevention in burn patients. The purpose of this project was to evaluate the use of a comprehensive evidence-based prevention program.

PICO Format Question: Does a comprehensive evidence-based infection prevention program reduce HAI's in burn patients?

EBP Model/Process: The EBP process developed by Melnyk and Fineout-Overholt was used.

Relevant Literature: Current literature regarding prevention of HAI's in intensive care units was reviewed by the project author. Ideas from tools designed by the Agency for Healthcare Research and Quality and the American Association of Critical Care Nurses were utilized, along with burn specific interventions, to develop a program. There are no published studies involving the burn population that focuses on a reduction of all HAI's utilizing a comprehensive prevention program.

Method: The project author used information from various models in the literature to develop a comprehensive infection prevention program. The program included education for care and maintenance of central lines, urinary catheters and ventilators. Additionally, the need for continued use of the lines was added to daily physician/nurse rounding discussions. Bundles to prevent ventilator associated pneumonia (VAP), central line associated bloodstream infections (CLABSI) and catheter associated urinary tract infections (CAUTI) tailored to the specific needs of a burn patient were developed and implemented. Nurse champions were selected to complete daily audits using the bundles with real-time education provided with any noted non-compliance. Root cause analysis (RCA) was completed on any documented line infection with education provided to staff upon completion. Emphasis was placed on improving hand hygiene of staff and visitors with unit nurses as handwashing observers. Infection rates were tracked by the hospital infection control department. Compliance to the program was monitored and tracked daily by the project author.

Outcomes: Rates of HAI's per 1000 patient days prior to the implementation of this program was 14.25 for CLABSI, 16.24 for VAP and 14.6 for CAUTI. Infection rates have decreased to 2.56 for CLABSI, 0 for VAP and 2.13 for CAUTI after 10 months of this project.

Conclusions and Recommendations: This improvement science project reduced the number of HAI's, increased nurse's knowledge, and was instrumental in developing nurse champions for infection prevention. It could easily be implemented in any ICU setting.

Implications for Nursing Practice: Based on our previous data from the first four months of 2012 before implementation of this program and the Improvement Health Institute’s data for average cost, it is estimated that an additional $485,000 in health care dollars was spent due to HAI's in our unit. The use of a burn specific infection program has the potential to significantly decrease the incidence of HAI’s and the cost of burn care.
Promoting and Sustaining Hand Hygiene Compliance in the UAMS Neonatal Intensive Care Unit
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Background: Neonatal Intensive Care Unit (NICU) hand hygiene compliance rates (77%) continue to be less than the accepted standard for Joint Commission (100%). These compliance concerns continued even after the interactive hand hygiene project titled “Grime Scene Investigation: the Rock” (GSI) was initiated within the Neonatal/Maternal-Infant Division during “Hospital Safety Week” 2012, at the University of Arkansas for Medical Sciences (UAMS). The GSI multidisciplinary team’s goal was to educate staff/visitors about the risks of nosocomial infections related to poor hand hygiene. All participants received education regarding when, why, and how to perform effective handwashing. In addition to this project, the UAMS organizational Infection Control initiative, “High Five to Clean Hands” was also underway.

Purpose: The purpose of this study is to promote hand hygiene in the NICU through increased compliance rates, with a goal of 95%, potentially leading to decreased nosocomial infection rates of high risk neonates through lateral transmission.

Method: Random covert audits were performed during a two-month period in order to ascertain the level of current compliance of the patient’s multidisciplinary team members and visitors in the NICU. No additional signage or education was provided post-GSI initiative in 2012. Hand sanitizers (soap, gel) were available in all patient rooms.

Results: Data was compiled using the Joint Commission Targeted Solutions Tool: Hand Hygiene Observation and Contributing Factor Form. The overall compliance rate, post- GSI and “High Five to Clean Hands”, was 78%. The top three contributing factors for hand hygiene noncompliance included improper use of gloves (60.9%), perception (17.4%), and frequent entry or exit (8.7%). The Analysis of Means (ANOM) chart compared hand hygiene compliance by types of health care personnel and visitors indicating what groups were more and less likely to be compliant. Results demonstrated that nurses and physicians are more likely to perform hand hygiene than visitors who are less likely to follow such a strict hand hygiene regimen.

Conclusions: Because the compliance rates continue to be less than the accepted standard for Joint Commission, this performance improvement project is ongoing. Plans are underway for additional hand hygiene signage, educational opportunities for staff/visitors, as well as increasing the availability of hand hygiene products within the NICU and at the bedside. The expected outcomes from these initiatives would include increasing hand hygiene compliance by at least 15%, potentially leading to decreased nosocomial infection rates among the immunosuppressed neonatal population.
A Novel Intervention to Reduce ED Overcrowding: A Before and After Analysis
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UAMS Medical Center

**Background:** Emergency Department overcrowding is a well-known, ongoing, and growing issue across the country. Overcrowding often results in a multitude of problems including prolonged time to seeing a physician, increased length of patient stay, and increase number of patients who leave the department without evaluation by a medical provider.

**Purpose:** This study describes and evaluates the impact of a novel approach to reduce overcrowding in an urban, level one, tertiary care center with 59,000 annual visits. We utilized our hospital’s 21 bed pre-operative unit as an overflow “surge unit” during hours when this unit was not being utilized for any other purposes, namely evenings and weekends.

**Method:** Analyses were performed comparing the averages for 12 months pre- and 12 months post- intervention for registration to provider time, arrival time to disposition determination, length of stay, and proportion of patients who left against medical advice (AMA), left without being seen (LWBS), or eloped. Statistical analyses included t-tests and the z-test for comparison of proportions with alpha set at $p = .05$.

**Results:** Implementation of the surge unit resulted in an average decrease in registration to provider time of 25 minutes, decreased average arrival to disposition time by 30 minutes, and decreased the overall length of stay by an average of 39.7 minutes. All improvements were statistically significant with $p < 0.05$. The percent of patients who left without being seen was also improved by 0.12% but this number was not found to be statistically significant.

**Conclusions:** Implementation of the novel intervention of a surge unit utilizing the already established pre-operative area after hours of regular operation resulted in a significant decrease in percent of patients who left AMA and eloped, overall length of stay, length of stay to disposition, and door to provider time.

**Implications for Nursing:** This study offers a novel approach and solution for nurse administrators to ED patient throughput.
Managing Medication after Pediatric Heart Transplant: Parent and Adolescent Views
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Background: 50-65% of pediatric transplant recipients are non-adherent resulting in hospitalizations and poor quality of life. Adherence decreases as adolescents assume more responsibility for self-management. In our previous work, the most critical issue was the social impact of the regimen, including medication side effects that made them “look different,” the interference of medical visits with school and work, and that the self-management activities marked them as different from peers.

Purpose: Long-term survival after pediatric heart transplantation depends on successful self-management of a complex medical regimen in partnership with parents. The transition from parent to adolescent self-management that occurs with maturity is especially challenging because of the complexity of the regimen, difficulty integrating the regimen into daily life, and the negative impact of the regimen on quality of life. We do not know how adolescents manage the complex regimen on a daily basis, how they attempt to integrate those self-management activities into their daily lives, how parents partner with them in the process, nor how adolescents and parents navigate adolescents’ transition to independent self-management. This gap in our knowledge is critically important since the consequences of poor self-management are costly and life-threatening, often resulting in non-adherence, rejection, repeated hospitalizations, and poor quality of life.

Method: Four adolescents (13-21 years) who were at least 6 months post-transplant and six parents were recruited for this study. There were two computer mediated focus groups for adolescents and one focus group with parents. Advanced practice nurses or a research nurse recruited participants in clinic at Arkansas Children's Hospital or Children’s Healthcare of Atlanta and will describe the study, screen for eligibility, and answer any questions.

Results: Strategies for managing medications differ from parents to adolescents. A close partnership between the two is paramount in progressing towards adolescent self-management. Parents are focused on developing a system of reminders, organizing, and role model/teaching. While adolescents are focused on learning/organizing.

Conclusions: Medications sometimes overtake the parents’ world, Adolescents believe that the medication regimen is now a standard, and The active work it takes on the parent side directly relates to the adherence of the routine to the adolescent.

Implications for Nursing: Computer-mediated data collection strategies increase access to research for this geographically dispersed population and are a particular advantage to those living in rural areas distant from the transplant centers. Successful self-management includes not only performing self-management activities and increasing independence, but also coping with those activities and integrating them into daily life. Thus, quality of life is maintained.
Problem and Purpose: The purpose of this evidence-based practice (EBP) project was to develop a quality report tool for timely and reliable access to patient outcomes data.

PICO Format Question: Does access to timely & reliable patient outcomes data increase the utilization of data in improving patient care?

EBP Model/Process: The conceptual framework Promoting Action on Research Implementation in Health Services (PARIHS) was used for this project.

Relevant Literature: Access to timely and reliable outcomes data has not been readily available for front-line staff nurses. With the increasing focus on quality, cost containment, safety, benchmarks, and prevention, nursing practice must begin to measure improvement with research evidence and feedback data about patient outcomes. In fact, the Affordable Care Act will allow healthcare consumers access to comparisons of the hospitals’ quality of care. In 1998, Kitson, Harvey and McCormack proposed a conceptual framework which is a guide for continuous patient care improvement through evidence-based nursing using a timely access to information.

Method: The primary author identified a need for timely and reliable data to compare current patient outcomes with past unit outcomes and published benchmarks among national burn centers. With the assistance of multiple departments, a quality score card was developed which reviews multiple data points. The quality score card is updated by the tenth of every month and used to report length of stay, nursing sensitive measures, hospital acquired conditions, complications and other outcome. Evidence-based projects are then developed and are tailored to the outcome data.

Outcomes: The Burn Center quality score card began with fiscal year July, 2012. The data is reported monthly in the nursing shared governed council, staff meetings and to the hospital board. Several evidence-based projects have been developed in translation of the data. For example, review of length-of-stays which exceeded benchmark length-of-stays demonstrated a need for improved discharge teaching.

Conclusions and Recommendations: A quality score card can provide timely and reliable data to support continuous improvement of patient care and evidence-based nursing.

Implications for Nursing Practice: Additional use of the quality report card will provide real-time outcomes feedback, evaluate practice, and provide comparative data in the competitive healthcare market.
Building Joint Commission Continuous Readiness in Partnership with Nursing Students: "Teach It-See It- Do It"

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Problem and Purpose: To introduce nursing students to the principals of Joint Commission compliance and accreditation, the UAMS College of Nursing and UAMS Medical Center identified an opportunity to simulate a survey using nursing students that would augment the leadership and management course in the College of Nursing and promote survey readiness in the hospital.

PICO Format Question: In an acute care setting, do Joint Commission tracer surveys by nursing students compared to surveys by hospital nursing administration provide valid assessment of current state Joint Commission readiness?

EBP Model/Process: UAMS EBP Model

Relevant Literature: Previous senior-level Leadership Management coursework included poster presentations by nursing students to hospital staff. Evaluation from students and faculty indicated an interest in developing a new approach. Instructors designed a simulated survey model led by student “surveyors”. In coordination with hospital accreditation leadership, the coursework included a review of TJC standards and tracer methodology, as well as a clinical experience that allowed students to conduct tracers on nursing units hospital-wide.

Method: Representatives from hospital accreditation and the college of nursing collaborated to consider lessons learned from previous simulated survey activities to expand opportunities to engage nursing students in survey readiness. Currently this teaching strategy includes a presentation from hospital leadership about standards, tracer methodology and components of a Joint Commission survey. Following this, students formed small groups to trace their assigned nursing unit and take on the role of student “surveyor”. Learning objectives include identification of non-compliance and practice of communication principals necessary to effectively exchange information with the nursing staff. At the conclusion of this project they are asked to make a formal Power Point presentation of findings to include two evidenced-based plans for corrective action; and create a poster summarizing their project to be located on the nursing units.

Outcomes: Feedback from students, instructors and hospital leadership is strongly supportive of having students continue this project. In addition, the relevance of this student tracer work is evidenced in the close correlation between the student tracer findings and the recently completed hospital triennial survey.

Conclusions and Recommendations: It is our experience that this activity effectively introduces nursing students to TJC survey process and fosters engagement in compliance and quality in the hospital setting as students make the transition to staff nurse positions.

Implications for Nursing Practice: Nursing students and hospitals where they transition into professional practice can benefit from having this experience and participation during undergraduate preparation.
Improving Documentation Compliance with Admission Checklists
Meleah Kerr, RN, Kim Minnie, RN and Samantha Rose, RN
UAMS Medical Center

Problem and Purpose: The problem of documentation compliance occurs when patients are transferred or admitted and tasks such as Admission Screening Referrals (ASR), Adult Patient Profile (APP) with medications listed, patient height and weight, Initial Pain Assessments (IPA) and individualized patient care protocols are not completed. Often times, these tasks are unknown, missed or forgotten by staff. The purpose of this evidence-based practice (EBP) project was to compare the effectiveness of traditional in-service and auditing versus the use of an admission/transfer checklist in improving documentation compliance.

PICO Format Question: In med surg registered nurses, what is the effect of admission checklists on documentation compliance compared with traditional in-services and auditing?
   P (population): Registered Nurses
   I (intervention): Admission checklists
   C (comparison): Traditional in-service and auditing
   O (outcome): Documentation compliance

Method: Several areas of documentation were identified as needing improvement. The Unit Council decided to start with Admission Screening Referrals (ASR) in which a PDSA was developed and utilized. Education included emails to staff, flyers, in-services and chart auditing. Documentation audits were reviewed monthly and after one quarter, the project team concluded that the compliance rates were inconsistent and any improved compliance was not sustainable. At the suggestion of the unit manager, a previously used form for admissions was brought to the project team’s attention. This form was updated for the research project’s needs.

Outcomes: Data analysis for the three months before the project began revealed that the compliance rate of the intervention unit’s registered nurses with documentation of Admission Screening Referrals was 72% (84/117). Documentation of Admission Screening referrals in the three months after the education was provided to staff and flyers posted in work areas were 91% (71/78), 55% (21/38), and 75% (15/20). After the introduction of the admission checklist, the documentation of Admission Screening Referrals increased to 80% (8/10), 90% (36/40), and currently 100% (29/29). After the introduction of the admission checklist, documentation compliance rates have improved.

Conclusions and Recommendations: The results of this study have concluded that the admission checklists have had a positive effect on documentation compliance specific to F9 admissions and transfers.

Implications for Nursing Practice: Additional research could further explain the benefits of checklists for staff whether they are in paper form. A proposed future topic of discussion related to documentation compliance is electronic checklists or prompts.
Effectiveness of having a Dedicated Admission / Discharge Nurse (ADF)
Rowena Garcia, Susan Berry, Joyce Randof
UAMS Medical Center

Problem and Purpose: Admitting and discharging patients from the hospital require complex processes that are critically important to ensure safe transitions in care. Traditional nurse staffing models in adult acute care hospitals do not include nursing staff dedicated to the admission and discharge processes of patient care. Literature evidences improved processes and outcomes when there is staff dedicated to these workflows.

PICO Format Question: In adult hospitalized inpatients on a medicine unit, will the use of a dedicated admission/ discharge nurse result in continued compliance with core measures and reduce delays in discharge caused by nursing personnel?

EBP Model/Process: UAMS EBP Model


Method: The use of an admission/ discharge nurse (ADN) was implemented on a medicine unit starting in March 2010. This nurse is responsible for reviewing the discharge pamphlet checklist with the patient and/or family, educating the patient about their admission diagnosis, and encouraging peers to continually educate patients daily on appropriate medical information based on the individualized plan of care. The topics covered by the ADN are: diagnosis, procedures, medications, dietary requirements, and an overview of the POC which includes instructions for home. The nurse also ensures CORE measure compliance with each admission and assists physicians with medication reconciliation, a requirement by TJC. On the date of discharge, the ADN ensures the patient have all necessary handouts, reviews pertinent information, and assists with the discharge process. Data is obtained to measure the time between the discharge order and actual discharge. Any barriers related to timely discharges are noted in this process.

Outcomes: PENDING

Conclusions and Recommendations: PENDING

Implications for Nursing Practice: PENDING
RN Career Shadowing:
Exploring Career Opportunities and Developing Mentoring Relationships
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Problem and Purpose: Staff may apply for different nursing positions without full knowledge of what that career choice entails, leading to job dissatisfaction and increased nursing turnover. The purpose of this evidenced based practice project was to evaluate the use of a Career Shadow program which allowed interested registered nurses the opportunity to shadow a variety of nursing careers that allowed them to identify the requirements and responsibilities required of a particular position and the study’s impact on job satisfaction, turnover, and professional growth.

PICO Format Question: For registered nurses, does the use of career shadowing program as compared with no career shadowing program, increase job satisfaction, decrease turnover, and promote professional growth?

EBP Model/Process: The Ottawa Model of Research Use was used as the framework for this evidenced based project.

Relevant Literature: The review of literature was conducted using the key words: career shadowing, job shadowing, and staff retention. Studies indicate using job shadowing programs provide hands-on-learning, develop mentoring relationships, increase professional growth, and improve employee retention.

Method: Six registered nurses were selected to participate in the pilot study. Six mentors were selected to assist based on their knowledge, skill level, and willingness to participate in the pilot.

Outcomes: Post surveys were conducted by 5 of the participants and 4 of the mentors. Surveys revealed that the participants found benefit in the experience and had an increase in understanding on the roles and responsibilities of the interested career paths. Mentors also revealed high satisfaction scores as a participant and enhancement of participants’ understanding of career choice.

Conclusions and Recommendations: Although the sample size is small for this study, survey results show an enhanced understanding of career choices and attainment of personal goals.

Implications for Nursing Practice: Staff turnover needlessly consumes fiscal resources. Providing staff with the opportunity to shadow a career interest increases job satisfaction and leads to an increase in mentoring relationships, professional growth, and staff retention. Future study will increase amount of participants and focus on the mentoring relationships.
Background: Traditional Nursing Research symposiums tend to attract academicians and graduate students. There was a desire to develop a Nursing Research symposium that would attract staff nurses. This study used the Gourmet Research Situated Learning Theory to design a Research symposium to encourage staff nurse participation in research and evidence-based practice initiatives. Gourmet Research is coined as the “Martha Stewart” design to teaching research. In the Gourmet Research workshop, to accomplish staff nurses understanding of the research process, through interactive learning methods, research concepts are presented by correlating them to meal planning and presentation. Through interactive principles of adult learning, the Gourmet Research workshop takes participants from the raw ingredients of research to a publishable piece of work.

Purpose: Determine if staff nurse participants of the Gourmet Research workshop had the interest in research stimulated, increased their understanding and participation in research, compared to staff nurses who did not attend the Gourmet Research workshop.

Method: A Qualitative Case Review of the Gourmet Research Situated Learning theory was performed. Interviews of three nurses who attended the Gourmet Research workshop and three nurses who did not attend were performed (1 AD, 1 BSN, & 1 MSN from each group). In the spirit of the Gourmet Research situated learning theory, Marshall and Rossman’s six steps for analyzing Qualitative Research were employed and correlated to the six steps of wine tasting. Demographic data, historical data from post Gourmet Research workshop participant evaluations, and observations were reported.

Results: Gourmet Research workshop participants consisted of 30 Staff nurses with varying levels of nursing education participated in the Gourmet Research workshop and rated the workshop at a 4.9 on a 1 - 5 point Likert scale (5 being the best rating). These findings were supported by the reported Gourmet Research workshop observations and post evaluation comments. Since attending the Gourmet Research workshop, all three of nurses interviewed reported participation in further research activities, through research publication, presentation and participation in evidence based practice. Of the three nurses interviewed who did not participate in the Gourmet Research workshop, two reported no involvement in any type of research activity and one reported active membership in the local Sigma Theta Tau chapter.

Conclusions: Utilization of the Gourmet Research situational Learning Theory increased staff nurse interest, understanding and participation in nursing research.

Implications for Nursing: This research study affirmed that staff nurses have a need and desire to understand evidence based practice and research processes. Nurse educators need to continue to explore education methods to best stimulate the nurses’ interest surrounding research issues and evidence based practice.
Electronic Communication to Enhance Unit Level Shared Governance
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CAVHS

Background: Unit Level Shared Governance (ULSG) is an organizational model wherein nursing leaders share control of nursing practice with direct care nurses. Shared decision-making requires effective communication, which can be difficult when shift workers are involved. Face to face meetings have traditionally been the primary method of communication used despite the rise of social media and varying methods of electronic communication.

Purpose: The aim of this study was to answer the following questions: 1. Does using an electronic threaded communication (ETC) increase participation in ULSG? 2. Does using an ETC to support shared governance activities increase a sense of empowerment in nurses? 3. Is there a correlation between use of an ETC and levels of empowerment? 4. What are the characteristics of those who use the ETC compared to those who do not?

Method: The 20 nursing units at the Central Arkansas Veterans Healthcare System (CAVHS) were allowed to elect whether or not to participate in the use of ETC for ULSG. Microsoft SharePoint was the chosen ETC software. Education was offered to familiarize staff nurses with use of the ETC. Those who elected to participate were asked to participate in pre and post implementation surveys.

Results: Demographic comparison of the pre and post responding groups was remarkably homogeneous with respect to age, gender, ethnicity, and team role. Further, the number of those having computers at home and using social networks did not change. The number of BSN respondents increased from 16.8% to 62.5%, a marked difference. These nurses had also participated in more online courses for their nursing degrees and online courses in general. Finally, the post measure of those using ULSG sites increased from 27.7% to 100%, with none reporting never using the ULSG sites. The responses to the empowerment questionnaire also indicated interesting trends. For questions relative to job capability and satisfaction, the groups showed no statistical significance in response. However, on questions such as “My impact on what happens in my department is large”, statistically significant changes were noted, with two-tailed P levels exceeding 0.01.

Conclusions: Participation in ULSG increased following implementation of ETC, and participants endorsed a greater feeling of empowerment after using ETC. Since access to this additional form of communication has a positive impact on implementation of ULSG and nursing staff, perhaps it is time to encourage the use of more accessible forms of communication.

Implications for Nursing: Since access to ETC has a positive influence on successful implementation of ULSG and nursing staff, it seems plausible that the use of more accessible forms of communication with regards to ULSG should be encouraged.
The Effect of Distance Mentoring on the Implementation of Evidence-Based Practice
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Background: Evidence-Based Practice (EBP) is a joint decision-making process involving the nurse, patient, and significant others based on patient’s expectations and preferences, clinical expertise, and best available evidence (STT, 2008). Infrastructures and resources, essential for successful implementation of EBP, vary across institutions. Researchers have attempted various strategies to overcome these barriers; however, limited information exists on the impact of an intensive distance mentoring program for direct care nurses provided with protected time to accomplish an EBP activity.

Purpose: The purpose of this study was to determine the effect of a distance mentored EBP Scholars Program on participants’ self-reported Knowledge, Skills, and Attitude (KSA) for evidence-based practice.

Method: The repeated measures design measured knowledge, skills, and attitudes using the 24- item Evidence-Based Practice Questionnaire (EBPQ), whose internal consistency is measured at 0.87. Construct validity was established by comparing scores with a measure of awareness for clinical effectiveness initiative, r=0.3-0.4, p<0.001 (Upton & Upton, 2006). Inclusion criteria to become a scholar include: full-time employment, a provider of direct patient care, and completion of a BSN program. Alternatively, the applicant may have completed the nursing research course in a BSN curriculum. The delivery format included using LiveMeeting software, online discussion boards, and telephonic mentoring sessions. One face-to-face visit to offsite scholars was provided by the mentor. The curriculum used is guided by the Nurse Residency curriculum developed by the EBP Goal Group through the Office of Nursing Services. Scholars completed the EBPQ at baseline, six months, and one year. Descriptive statistics were used to analyze the data.

Results: Nine EBP scholars began the program; one withdrew for health reasons, and one for personal reasons. Formative evaluations demonstrated a marked increase in all measures; Twelve of the 14 skills subscales improved from baseline to one year, with a 22% increase in the overall EBPQ score. However, there was a discernible difference in the uptake of change at institutions where EBP was more novel. Finally, the scholars productivity varied widely; one participant is still working with IRB issues while another is presenting at a national conference. Overall, the Scholars have presented 15 posters and 3 podium presentations.

Conclusions: Distance learning is a viable delivery format for EBP. Baseline responses indicated that participants already have knowledge and good attitudes toward EBP; therefore, this somewhat moderate increase is not surprising. A perceived lack of support and time management issues contributed to the withdrawal of one person.

Implications for Nursing: An engaged mentor is a paramount resource for nurses to be successful in informing and implementing EBP. Other infrastructure components require additional research to explicate their role in implementation of EBP initiatives.
**Incivility in Nursing Education**
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Union University

**Significance:** Nurse educators are reporting more frequent incidents of incivility between students and faculty which disrupts student learning and causes stress for faculty and other students. If these behaviors are not addressed during the education process, they can easily transcend to health care environments.

**Purpose (or Problem):** The purpose of this integrated review was to determine the impact of incivility on the students and faculty in nursing education programs.

**PICO Format Question:** In nursing education programs does incivility decrease student learning and cause emotional stress for faculty and students?

**Search Strategy and Quality Screening:** A computerized literature search was conducted using the following search engines: Medline, SocINDEX, Healthsource: Nursing/Academic Edition, PsycARTICLES, PsycINFO, Psychology & Behavioral Sciences Collection, ERIC, CINAHL Plus, and Academic Search Elite. Search terms used for each search were combinations of the following: incivility, nursing, nurses, academia, academic, faculty, and education. No hand searches were attempted. We excluded any studies that did not address incivility in a nursing academic setting, or that did not reflect the effects of incivility on nursing faculty and/or nursing students. Limiters placed on the search included only accepting peer reviewed research articles published between 2007 and 2012 to include the most recently published material on incivility in nursing education; only studies published in English; studies conducted in the United States, and only involving humans. No theses, books or chapters of books were included. We did not limit our search to any particular type of research design because we wanted to include both quantitative and qualitative studies.

**Evidence:** The search produced 70 articles; after removal of duplicates, we had 66 articles. After screening for our required variables we were left with 23 but excluded nine articles because two were outside of the United States and seven focused on other variables. We further discarded an additional six because these did not include all of our variables; this left us with eight studies for review.

**Synthesis of Evidence:** Of the eight studies reviewed, four studies measured faculty and student perceptions of incivility and found that both faculty and students viewed many of the same behaviors as uncivil. Of those four studies, one study also found that there was no relationship between demographics and perceptions of incivility. Another study surveyed academic nurse leaders’ perceptions of incivility of both students and faculty; as a result, their suggestions focused on more support for both faculty and students. Two studies investigated the effects of faculty incivility on undergraduate nursing students’ satisfaction with their programs and found that there was a strong correlation between students’ program satisfaction and their encounters with incivility. The last study looked at the effects of uncivil student behaviors on nursing faculty and found multiple impacts on time, money, productivity and well-being.

**Conclusions and Recommendations:** Our integrated review revealed an urgent need to address incivility in nursing education. Additional research is recommended to determine what is perceived as incivility, what student or institutional factors are related to incivility, and how interventions impact perceptions of incivility. Our review also stressed the need for development of policies, educational opportunities for faculty and students, and commitment from institutional administrators to help faculty and students learn how to better cope with conflict in an acceptable manner.

**Implications for Nursing Practice:** If incivility is not addressed during the educational process, it can easily transcend to health care environments. Therefore, in addition to institution policy development, academic nurse leaders are encouraged to role model the skill of offering constructive criticism and feedback in a professional manner, to support and organize forums to discuss student-faculty concerns, and to provide counseling, coaching, and mentoring.
Evidence for Using Simulation During Nursing Orientation to Enhance Knowledge and Skill with Medication Administration.

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Central Arkansas Veterans Healthcare System (CAVHS)

Significance: Medication administration is a high volume, high-risk cognitive and psychomotor nursing skill. Joint Commission reports medication error is the most common error to occur in acute care settings. Most hospitals use advanced technology to minimize the risk. Nurses are oriented and validated as competent to perform this complicated task during orientation. Simulation provides an avenue to learn complex concepts, such as medication administration, in a safe environment without risk of patient harm. The process of learning through hands-on assessment, evaluation, decision-making, and error correction is superior to passive instruction.

Problem (or Purpose): Automated medication systems are complex and safe medication administration is critical. New nurses should be allowed sufficient opportunities to practice and have their medication administration skill performance assessed and validated prior to providing the skill in the clinical setting.

PICO Format Question: Does the use of simulated equipment and patient scenarios to teach medication administration during nursing orientation provide a more meaningful, authentic, and effective learning experience than traditional methods of handouts, lectures, and observation?

Search Strategy and Quality Screening: The literature search process used CINAHL Plus with Full Text; Nursing and Allied Health Collection: Expanded; Health Source: Nursing/Academic Edition; Database of Abstracts of Reviews of Effects; Cochrane Database of Systematic Reviews; Cochrane Central Register of Controlled Trials; Health Technology Assessments; Library, Information Science & Technology Abstracts; Professional Development Collection; Academic Search Elite; MEDLINE with Full Text; and CINAHL with Full Text. Search terms used to locate appropriate literature were simulation; simulation AND medication; Simulation AND medication administration; and Simulation AND medication errors, using the Boolean operator. Search years were limited to date of Publication from: January 2008 – February 2013. The search was further limited to Full Text; Peer Reviewed; and English Language.

Evidence: The initial search produced a total of 35,745 articles. The search was reduced to articles evaluating outcomes of using simulation to teach medication administration, resulting in 8 articles.

Synthesis of Evidence: Learners included nursing students and healthcare providers, with a majority of studies conducted in nursing programs. Each article used different methods of simulation to educate their learners including computer based simulation and simulated clinical experiences. The goals ranged from improving efficiency and operational decisions to developing strategies to decrease medication errors. The impact of the use of simulation resulted in fewer medication errors, workflow improvement, identifying knowledge gaps, a safe opportunity to learn without potential harm to patients, and increased learner confidence. Limitations included the use of subjective tools with potential bias in reporting errors and variations in knowledge.

Conclusions and Recommendations: There is moderate support that use of simulation improves knowledge, skill, critical thinking, and confidence of nurses learning medication administration systems. There is a limited data to suggest simulation directly improves patient safety and in comparison to didactic lecture, simulation improves the learner’s overall knowledge. Additional studies should be conducted and disseminated to add to the strength of the evidence.

Implications for Nursing Practice: Simulation engages learners, facilitates learning, and could be utilized to teach complex skills such as medication administration during nursing orientation.
Implications and Prevention of Health Care Worker Fatigue: A Literature Review

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Significance: JCAHO has issued a sentinel alert about health care worker fatigue and hospitals across the United States are looking for ways to deal with this patient safety issue. Worker fatigue associated with work schedule design, inadequate sleep, exposure to work stress, “burnout,” emotional turmoil, and physical demands contribute to risks to patient safety. Hospitals have a vested interest in limiting risks to patients and employees stemming from worker fatigue.

Purpose (or Problem): The purpose of the review was to determine both the implications of health care worker fatigue and to find what Evidence Based Practice exists related to prevention of health care worker fatigue.

PICO Format Question: In nurses practicing in the hospital setting, does implementing evidence based practice interventions compared to usual practice of no interventions reduce nurse fatigue?

Search Strategy and Quality Screening: A literature review was conducted. Searches were limited to the last ten years, English only, NOT “nursing home.” Searches included “prevention,” “control,” “fatigue,” “exhaustion,” “tired,” “tiredness,” “sleep,” “nurses,” and “nurse fatigue,” or “burnout, professional.”

Evidence: PubMed yielded 153 results, CINAHL yielded 36, with 189 results found in all. A total of 27 articles were found to have relevance to the study. Relevant articles were placed into a matrix listing the title, author, publication year, and journal of publication. Article content and implications for nursing were also detailed in the matrix alongside each listed article.

Synthesis of Evidence: The vast majority of published material on this topic generally addresses nursing burnout, but does not address health care worker fatigue. Little information exists regarding specifically what implications health care worker fatigue has on an organization; nor are there clear sources of Evidence Based Practice which could be applied to reduce the effects of health care worker fatigue.

Conclusions and Recommendations: While the results are frustrating and unexpected, this literature review shines a light on the need for research studies on this topic. While an innate understanding that tired workers may place their patients at risk, little published data exists to provide policy or practice guidance.

Implications for Nursing Practice: JCAHO has documented concerns for patient safety when health care workers are fatigued. Multiple nursing journals provide accounts of how the nursing environment, as it exists today, contributes to health care worker fatigue which is documented as leading to higher risk for patients. If the nursing environment does not change, the risk to patients will not improve. It is critical that the causes of fatigue in the health care workplace are addressed to protect patients and nurses.
Evidence for Promoting Tobacco Cessation in Patients with Serious Mental Illnesses to Decrease Chronic Pain

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Significance: Mental health providers in all settings care for patients with serious mental illnesses (SMI) who have tobacco use disorders and chronic pain. There is a need for mental health providers to assist patients with SMI in quitting tobacco use to help decrease their chronic pain.

Purpose (or Problem): Patients who have SMI smoke at much higher rates than similar demographics without SMI. Smoking related illnesses are the leading cause of death and illness in this patient population. In addition, studies suggest smokers experience more chronic pain than nonsmokers do. Chronic pain issues compound the functional and social impairments patients with SMI already face. Mental health providers need improved knowledge about the benefits of tobacco cessation for patients with SMI. Specifically, they need to increase their understanding of tobacco cessation relative to decreasing and successfully managing chronic pain for patients with SMI.

PICO Format Question: Among patients with SMI, does promoting tobacco cessation assist with smoking cessation and reduce their chronic pain issues?

Search Strategy and Quality Screening: The literature search process used EBSCO, American Psychological Association, Canadian Mental Health Association, and Google Scholar. Search terms used to locate appropriate literature were serious mental illnesses, chronic pain, smoking and tobacco use. Search years were limited to 2005-2013 and articles were limited to quantitative and qualitative research reports. The search included information about chronic medical conditions in the SMI patient population. Quality screening included checks for patients with mental illnesses such as schizophrenia and bipolar disorder, tobacco use and chronic pain.

Evidence: The search provided ten studies. The results were limited to studies about patients with mental illness and chronic pain issues. The studies included quantitative and qualitative research studies about patients with mental illness and chronic pain and medical problems.

Synthesis of Evidence: The examined articles emphasized smokers have more chronic pain than nonsmokers. Evidence indicated patients with SMI need their mental health providers to assist them with quitting tobacco use. The literature revealed that some patients with SMI want to quit tobacco use, but some mental health providers do not feel that patients with serious mental illnesses want to quit tobacco use or can quit tobacco use. This key disconnect must be eradicated to insure patients with SMI are encouraged to stop tobacco abuse.

Conclusions and Recommendations: Including tobacco cessation education and support as a necessary element in providing mental health care may help more patients with SMI quit tobacco use and also decrease their chronic pain. Some mental health providers need knowledge which proves that many patients with serious mental illnesses desire to quit tobacco use.

Implications for Nursing Practice: Nursing leaders can provide nurses the education and training to include tobacco cessation as part of their daily practice when providing patient education, especially for patients who have SMI.
Recruiting and Educating Nursing Students for Disaster Response through the American Red Cross
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Problem and Purpose: A 2010 national survey of American Red Cross State Nurse Liaisons revealed that multiple strategies were used to reach nursing students, resulting in duplication and increased use of resources. In addition, there were no methods to measure the outcomes of these strategies. The purpose of this evidence-based education project was to describe the outcomes of a nationally-released American Red Cross Disaster Health Services Class, titled Disaster Health and Sheltering, among nursing students who enrolled during the pilot phase and the first year after the official launch.

PICO Format Question: Among pre-licensure nursing students in the United States, was the Disaster Health and Sheltering course effective in preparing students to serve as disaster volunteers in American Red Cross shelters?

EBP Model/Process: The official Disaster Health Services course for licensed nurses was used as a model for the development of this custom-designed course for nursing students.

Relevant Literature: Disaster preparedness is a critical component in the professional development of nursing students, and is required by the AACN Commission on Accreditation. The American Red Cross requires standardized training for nurses wishing to serve as disaster volunteers. But the Red Cross website listed no comparable courses for pre-licensure nursing students. The course was based upon a model developed for nursing students in Little Rock, AR and St. Cloud, MN. No publications were identified describing a comparable educational model.

Method: The course developers pilot-tested the course in BSN and ADN programs in each Red Cross region in the U.S., as well as at a National Student Nurses’ Association Convention, during 2010-2011, then launched it officially in Fall, 2011. After completing the course, students responded to an online survey requesting feedback on the quality of the course as well as their intent to enroll as Red Cross volunteers.

Outcomes: Preliminary results (n = 134/700) indicated that 121 (95.3%) are somewhat to very interested in volunteering, with 99 (76.8%) indicating the odds were 75-100% that they would enroll as official volunteers at some point in their nursing career.

Conclusions and Recommendations: The course has received high ratings for quality, and motivated students to volunteer with the American Red Cross, so will be continued for the foreseeable future. Periodic online surveys will be sent to determine longer-term outcomes.

Implications for Nursing Practice: The long-range goal is to recruit and educate enough nurses to staff disaster shelters throughout the United States.
Student Posters
Abstract # 48

Catheter Associated Urinary Tract Infections (CAUTI)
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Significance: Approximately 25% of patients in the acute care setting have urinary indwelling catheters (Loeb, Hunt, O'Halloran, Carusone, Dafoe, Walter, 2008). Many of the patients do not need it, and have the catheter placed inappropriately. The Joint Commission has National Patient Safety such as Goal NPSG.07.06.01 that suggests the use of proven guidelines to prevent CAUTI (Joint Commission, 2012).

Purpose (or Problem): The purpose of this literature search was to retrieve evidence to determine if the use of automatic stop orders would reduce the incidence of CAUTI.

PICO Format Question: In hospitalized patients with indwelling urinary catheters, will the use of automatic stops orders that require renewal for continuation of the catheter compared to no pre-existing automatic stop orders reduce the risk of developing catheter associated urinary tract infection (CAUTI)?

Search Strategy and Quality Screening: The team searched Google Scholar, CINAHL, and PubMed for evidence and documented the search as it proceeded. Search terms were best practice, indwelling urinary catheter, RCT, infection control, CAUTI, acute care, automatic stop orders and hospitals. Limitations were years 2008-2011, acute care settings, and adult patients. Types of articles included randomized control trials (RCTs), before and after studies, systematic reviews and meta-analysis. Searched databases provided a limited number of articles. CINAHL yielded 48 articles. PubMed initially had none, but after changing search criteria yielded up to 31,187, and 264 in Google Scholar. We applied limits of English language and current publications (2008-2011). the numbers of articles were two, one, and four respectively.

Evidence: The evidence reviewed consisted of two articles from CINAHL, one article from PubMed and four articles from Google Scholar. We also reviewed two published national professional practice guidelines retrieved from the National Guideline Clearinghouse.

Synthesis of Evidence: The evidence states that using reminder systems and stop orders are key components in reducing inappropriate urinary catheterization, which in turn decreases the number of inappropriate catheter days. This process can also decrease the risk of developing CAUTI. Further research is needed for specific (evidence based practice) methods to implement this process.

Conclusions and Recommendations: Decreasing the number of inappropriate catheters can also decrease the risk of developing CAUTI because the longer a catheter stays in the bladder, the greater the chance of infection. The use of automatic stop orders and nurse reminders reduces the duration of catheter insertion, and thus leads to a reduction in CAUTI.

Implications for Nursing Practice: Automatic stop orders and nurse reminders for removal of catheters may reduce the incidence of CAUTI. This would reduce patient length of stay in the clinical setting; cost(s) absorbed by the patient and other stakeholders, and allow the nurse more time with patients (less time on the phone contacting the physician for orders). Healthcare facilities should consider use of automatic stop orders and reminders for removal.
Effectiveness of Safe Sex Programs on College Students
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Significance: Successful safe-sex interventions could lower the rates of STD cases, and so it is important to research what interventions are the most successful.

Statement of Problem (or Purpose): The purpose of these studies was to identify if interventions about condom use and safe sex practices influenced college students to change their sex habits.

PICO Format Question: How will condom use and safe sex practices influence college students to change their sex habits, thereby decreasing STD and HIV rates?

Search Strategy and Quality Screening: HSU’s Huie SuperSearch was used to find peer-reviewed full text articles from 2007 and up. Search terms included “safe sex,” “college students,” “videos,”, and “behavior.” Articles were also evaluated on generalizability, meaning some were not considered because the population studied was too limited.

Search Results: Three articles were found that met the criteria: For the randomized controlled trial of brief interventions to reduce college students’ drinking and risky sex, counseling sessions prove effective in reducing risky sexual behavior with the consumption of alcohol. For the theory based safer sex intervention among African-American college students, there was no statistically difference made among college students. For the improving condom use intentions and behavior by changing perceived partner norms, viewing of condom use videos proved effective in preventing risky sexual behaviors among college students.

Synthesis of Evidence: Out of these three studies, two had successful interventions that lowered the rate of unprotected sex and raised the intentions to use condoms and self-efficacy. One of the interventions was preventing the consumption of alcohol in relation to sexual activity and the other was administration of proper condom use videos with both male and female speakers.

Conclusion and Recommendations: On the average college campus, interventions such as proper condom use videos and alcohol abstinence programs can be effectively used to reduce risky sexual behaviors among college students. Barriers are lack of time and motivation of the college students.

Implications for Nursing Practice: Reducing the rate of STD and HIV infections is important to nursing because teaching leading to prevention of diseases is a large responsibility of nurses.
Comparison of forced-air warming with resistive-polymer warming to treat hypothermia in perioperative adult patients

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Significance: The harmful effects of even mild inadvertent hypothermia in perioperative patients have been well documented for years by the Association Of Perioperative Registered Nurses and the American Society of Anesthesiologists, among others. Forced-air patient warming is an effective, proven choice for patient warming. More recently, resistive-polymer patient warming devices have appeared on the market. If these devices perform comparably with or better than forced-air systems, these methods would be worth consideration when ORs and PACUs purchase equipment.

Purpose (or Problem): The newer availability of the resistive-polymer devices means that many perioperative staff do not have the information to decide whether this system is less, equally, or more effective than traditional forced-air warming systems already in use in many perioperative areas.

PICO Format Question: In adult perioperative patients, how does perioperative warming with forced air heating compare with perioperative warming with resistive-polymer heating in maintaining normothermia?

Search Strategy and Quality Screening: As a partial requirement for completing NUSC 5013, a literature review was conducted. The literature search process used the PubMed database. Search terms were resistive, forced air, and warming. Search years were limited to the past 10 year, and article types were limited to clinical trials in humans. The topics of rewarming after cardiopulmonary bypass or therapeutic hypothermia were excluded, as were studies in the pediatric population. Studies on the effectiveness of preoperative warming on perioperative hypothermia were also excluded. Quality screening included confirmation of random patient assignment to control and experimental groups, use of core temperatures to assess effectiveness of interventions (as opposed to skin temperature only), and correct application and use of the products in the studies.

Evidence: Using the search terms perioperative, warming, resistive, and forced-air yielded 9 studies. Qualities that resulted in articles being chosen included quantitative design, as well as subject matter of intraoperative hypothermia and comparison of forced-air warming devices with resistive-polymer warming devices. Five studies were chosen for review.

Synthesis of Evidence: In all but one of the studies, resistive-polymer warming devices performed at least as well as forced-air warming devices, with the difference between the experimental and control groups being insignificant. In one study, core temperature increased at twice the rate in patients assigned to forced-air warming.

Conclusions and Recommendations: Resistive-polymer warming devices appeared to treat inadvertent perioperative hypothermia in adult patients as well as did forced-air warming devices in 4 out of 5 studies reviewed, and are therefore worth consideration when choosing a warming product.

Implications for Nursing Practice: When effectiveness of a warming product is confirmed, other issues such as ease of use, cost, and patient/staff preference can be considered to allow perioperative staff to make the best choice of products, leading to optimal patient outcomes.
Exercise and Depression: Yoga vs. Aerobics  
Cori Davidson, Alyssa Jones, Dillon Louton, Ireen Milloway, Alyssa Pye, Harjeet Thiara  
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Significance: Depression affects many people in the adult population worldwide. Acute symptoms of depression include lack of interest, lethargy, insomnia, alterations in appetite, and agitation. All acute symptoms of depression can affect quality of life and general productivity. Exercise can help to reduce some of these acute symptoms.

Statement of Problem (or Purpose): The purpose of this literature review is to analyze a focused review of literature concerning the effects of yoga versus aerobic exercise on depression.

PICO Format Question, Search Strategy and Quality Screenings: PICO Question: In adults with depression, is there a significant difference in the effects of yoga versus aerobic exercise on the acute symptoms of depression?

Search Strategy: Our search strategy used Google Scholar, Huie Library Supersearch, and Ebscohost databases to research appropriate articles. Search terms used in the databases were yoga, depression, exercise, effects of running on depression, and aerobics.

Quality screening: We made sure that each study looked at for this literature review used only human participants and we aimed to ensure that the studies used were completed by a group rather than just one researcher. Of the six articles used in this review, only one was completed by a single researcher.

Search Results: In total, over 114,000 results were found when initially searching the given search terms. This number was reduced to 7,106 by selecting only peer-reviewed, full-text articles, published in the years 2007-2012. Choosing to only view articles from academic journals reduced the search down to 3,735. Five articles were chosen that gave significant information about the effects on depression of either yoga or aerobic exercise.

Synthesis of Evidence: The results from all of the studies used in this review concluded that exercise, whether aerobic or yoga based, reduces the acute symptoms of depression. Within the review, three studies focused on aerobics and two were centered on yoga. All studies found that aerobic exercise and yoga can decrease the acute symptoms of depression, but neither one can be proven more beneficial than the other.

Conclusions and Recommendations: Though exercise cannot eliminate the complete need for conventional treatments, studies in this literature review show that exercising reduces the acute symptoms of depression. Both yoga and aerobic exercises are readily accessible and cost effective. It is probable that those suffering from acute depression could reduce their need for conventional treatments, therefore saving money. Exercise could be especially important for individuals on income based insurance plans because funding for mental health in these programs is quite limited.

Implications for Nursing Practice: Nurses can use this information to provide an alternative method to depression treatment other than pharmacological therapy. Also, both yoga and aerobics can be used in conjunction with medication and could possibly give a better outcome. Nurses could also provide this as a cost effective option to patients of low socioeconomic level who cannot afford conventional methods. Nurses can encourage patients to participate in a yoga or aerobics program either in conjunction with medication or as an alternative method to reduce depression when a patient refuses medication. Exercise cannot eliminate the need for conventional treatments, but can have an effect in reducing depression.
Effectiveness of the Edinburgh Postnatal Depression Scale in Identifying Women with Postpartum Depression

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Significance: Postpartum depression can be a serious disorder that affects many new mothers. It is important to have a tool that can be used to effectively identify the possibility that postpartum women may have depression and need further referral for help. The Edinburgh postnatal depression scale (EPDS) is one such tool that may be used for this type of screening.

Purpose (or Problem): The purpose of this evidence-based (EBP) project was to examine the effectiveness of using the Edinburgh postnatal depression scale to identify women who have postpartum depression (PPD).

PICO Format Question: Is the EPDS questionnaire effective when screening for depression among postpartum women?

Search Strategy and Quality Screening: To discover the effectiveness of the EPDS for clinical practice, the project team used the Cumulative Index for Nursing and Allied Health (CINAHL) database to search for the term Edinburgh postnatal depression scale published between 2007 and 2013; with the limiters: research article; human; English; PDF full text. The research sample reports examined how many women were subsequently diagnosed with postpartum depression after being screened with the EPDS and referred to a mental health professional. After quality critique, the data were compiled into an instructor-produced table that listed the findings and conclusions about the efficacy of the EPDS.

Evidence: A search of CINAHL using the search term Edinburgh postnatal depression scale produced 165 research reports. After screening for relevance, nine were selected for quality critique. The final sample included nine research reports.

Synthesis of Evidence: Findings from six reports indicated that women with a positive EPDS score were more likely to then be identified as having depression. One report demonstrated the EPDS was significantly more accurate than two other scales used for PPD screening. One report suggested the continued use of the EPDS for PPD screening. One report proposed that PPD screening with the EPDS within the first six months after delivery may accurately identify women at risk for PPD.

Conclusions and Recommendations: The results of this study suggest that the EPDS may be an effective means of identifying women with postpartum depression in the clinical setting.

Implications for Nursing Practice: The EPDS may be a reliable measure in identifying the presence of depression in postpartum women and may be useful in clinical practice to determine the need for referral to a mental health professional.
**Women and Heart Disease Risk: Knowledge is Power**  
Stephanie Fortenberry, Randi Rodgers, Hannah Abernathy  
University of Arkansas at Monticello School of Nursing

**Significance:** Many women have coronary heart disease related to lack of knowledge of prevention measures.

**Purpose (or Problem):** Many women have coronary heart disease related to lack of knowledge of prevention measures. The purpose of our study was to examine factors that affect or contribute to women's risk for CHD.

**PICO Format Question:** How does knowledge of CHD risk factors, prevalence, and preventative measures effect the incidence of coronary heart disease in women? The literature search process was conducted by using EBSCOhost/CINAHL Plus with Full Text using the search terms coronary heart disease, women AND prevention. All studies were limited to only studies published between 2008 and 2012.

**Search Strategy and Quality Screening:** Using the search term Coronary heart disease produced an initial article total of 1,217. Using the search terms women and prevention decreased the article numbers to 646. Limiting the results to publication years between 2008 and 2012 and accepting only research articles narrowed the search to 28 research studies. Reviewing titles and reading abstracts lead to nine relevant articles.

**Evidence:** The project team comprised of three UAM nursing students reviewed the literature (including 4 descriptive studies, two interventions, tool development and two correlational studies) and found that perceived risk factors of CHD had the greatest impact on women’s use of preventative measures.

**Synthesis of Evidence:** Three articles examined women’s knowledge of risk factors for CHD. They found that women have an inadequate amount of knowledge of the risk factors for CHD and ways to prevent it. One article suggested that a history of gestational diabetes correlates with an increased risk for CHD. Three articles examined contributing factors for CHD prevention and found that a perceived risk of CHD had the biggest impact on lifestyle changes. One article looked at the effect of modifiable risk factors on the outcome of CHD and found that having one or more risk factors significantly increased the morbidity of CHD. Our final article examined the effectiveness of exercise as a blood pressure lowering strategy and found that more testing is required to determine how effective this strategy is.

**Conclusions and Recommendations:** Although the results of this research study revealed that modifiable risk factors have a significant impact on the outcome of CHD in women, more knowledge is needed on women’s perceived risk factors for CHD.

**Implications for Nursing Practice:** Nurses need to be more proactive in educating women of the risk factors for CHD. More testing and research is needed in regard to women’s perceptions of risk factors and preventative knowledge of CHD.
Evidence Based Practice: Complementary and Alternative Medicine in Autism Treatment
Lindsey Gates, RN, BSN
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Significance: Complementary and alternative medicine (CAM) and treatments are widely used by families of children with Autism Spectrum Disorders (ASD). Many medicines and treatments are recommended to these families by internet sources, word of mouth from other families, and even their primary care providers. However, most of these are not yet endorsed by the Food and Drug Administration (FDA) for use as a treatment in ASD. Clinicians need to ensure that they are able to provide appropriate feedback on alternative medicine and treatment options when asked by these families for any recommendations.

Purpose (or Problem): Many families ask their primary care providers on advice about using alternative medicines and treatments along with prescribed medications and treatments for their children with ASD. However, there are frequently misleading and incorrect reports published in popular media. This can make it difficult for families and clinicians to determine what treatments may be beneficial, what treatments may have no effect, and which ones may actually have detrimental effects.

PICO Format Question: Among popular complementary and alternative treatments for ASD in children, is there any evidence to support or discredit using them as opposed to conventional medicine alone?

Search Strategy and Quality Screening: The databases Ovid, PubMed, EBSCO, The Cochrane Database, Medline and PsychInfo were all used to search for literature. Search terms included autism, autism spectrum disorders, complementary medicine, CAM, and more specific terms such as melatonin use, nutritional supplements, dietary alteration, gluten free diets, casein free diets, acupuncture, sensory integration therapy, music therapy and the Boolean operator AND. Search years were limited from 2007 until present. Article types were limited to other comprehensive literature reviews, systematic reviews and randomized controlled trials (RCT's) on the 15 most common CAM therapies for autism found in the U.S. Quality screening included checks of study population size, clear definition of CAM therapy investigated, and clear analysis in the randomized controlled trials.

Evidence: Initial results returned a combined total of 1,346 articles. These were narrowed by limiting for the 15 most common CAM therapies being investigated. The number was further limited by including only literature reviews, systematic reviews, and RCT's. Finally, all studies included only pediatric patients 18 years and younger with a diagnosis of ASD. 17 articles were included in the final analysis.

Synthesis of Evidence: The examined articles showed that while some CAM therapies showed promise in trials, some did not have any statistical difference in the treatment of ASD while others were actually detrimental. All studies concluded that more research was needed on each topic before strong conclusive evidence could be determined.

Conclusions and Recommendations: While some CAM therapies appear to have promising benefits when used in conjunction with conventional medical therapies, more studies and information need to be obtained before these come into regular use.

Implications for Nursing Practice: While there are many testimonials for different CAM therapies available in the public, it is important that families are educated on what research actually shows when it comes to complementary and alternative medications. While there are several that seem to have promising benefits, there is not conclusive evidence for including these in conventional medical practice. There are also a few CAM practices that were found to be detrimental and need to be avoided entirely. Both patients and families deserve to be well-informed before they choose to incorporate any CAM therapies into the treatment regimen for their ASD child.
Benefits of Using a Sugar Based Substance to Alleviate Neo-natal Pain During Painful Procedures

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Significance: Neonates are exposed to countless painful procedures during the hospital stay that is required at the beginning of their lives. The birthing process alone is very stressful on neonates and unfortunately many of the required procedures to monitor a neonate’s health are painful and can add additional stress to the newborn. It would be negligent to avoid these procedures to keep from exposing a newborn to the added stresses of pain. If providing a neonate with a sugar based substance prior to a painful procedure could significantly reduce the pain experienced, it would be imperative to implement policies and procedures that would render this standard practice.

Problem (or Purpose): The purpose of this study was to evaluate the current research pertaining to the analgesic effect of sugar based substances on neonatal pain during painful procedures.

PICO Format Question: Among neonates in the hospital setting, will the administration of a sugar based substance before a painful procedure decrease pain levels in accordance with an identified pain scale?

Search Strategy and Quality Screening: Two databases were used to collect relevant research articles pertaining to the use of sugar based substances in painful neonatal procedures. The search conducted utilizing the PubMed database initially yielded 257 results with the search criteria of “Infants, pain and sucrose”. The results were narrowed to 100 articles through the addition of requiring a publication date within the last five years. The second search conducted utilizing the EBSCO database yielded 112 results with the search criteria of “Infants, pain and sucrose”. The results were narrowed to 23 articles through the addition of requiring a publication date within the last five years. Of the 123 articles reviewed 11 were chosen for inclusion in the critique process.

Evidence: The project team comprised of three UAM nursing students reviewed the literature including randomized control studies, literature reviews, and double-blind studies. After utilizing the critique process provided by the research instructor nine articles were included in the final research study.

Synthesis of Evidence: Analysis of the articles included in the research study revealed that the majority consensus concluded that administration of a sugar based substance had no statistically significant effect on pain levels. Of the nine articles, only four concluded that a sugar based substance did result in a significant reduction of pain levels in neonates.

Conclusions and Recommendations: Although the results of this research study revealed that a small majority five of nine concluded that sugar based substances did not reduce pain levels in neonates, the remaining four provided statistically significant evidence of a reduction in pain using a sugar based substance. Based on these research findings a definite conclusion cannot be drawn at this time.

Implications for Nursing Practice: Although additional research is required to draw a definite conclusion, administration of a sugar based substance when not contraindicated, could be used prior to a painful procedure in an attempt to reduce neonatal pain.
Attitudes of the Direct-Care Nurse

toward Advanced Practice Nurses in the Hospital setting

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Purpose: The purpose of this study was to present a more comprehensive look at perceptions of the practice environment for the direct-care nurse’s point of view and shed light on issues such as patient outcomes and APN leadership on nursing units.

PICO Format Question: Is the attitude of direct-care nurses toward the Advanced Practice Nurses in the hospital setting positive regarding patient satisfaction, decreased length of stay and impact on the direct-care nurses’ practice?

Significance: Changes in the healthcare environment have resulted in the increased presence of the APN in the hospital setting. APNs work collaboratively in hospital settings with physicians to bridge the gap between nursing and medicine. The APN role training focuses in acute, episodic, and critical conditions and is targeted toward inpatient versus outpatient practice which is focused on the management of chronic disease. APNs have frequently been shown to provide more cost-effective, individualized care, and improve staff and patient satisfaction (Bruce & Steinke, 2006). Daily interaction with the APN will nurture the development of critical thinking skills amongst the nursing staff as well (Lome et al., 2010).

Relevant Literature: To date, no published study has been found that examined the attitudes of direct-care nurses toward advanced practice nurses (APNs) in the hospital setting. One study reported APNs whose roles involved a strong clinical component felt most able to influence direct care nurses as it created opportunities to promote evidenced based practice in tangible and relevant ways through informal teaching and role modeling (Gerish et al., 2012). Another article concluded that the ACNP role bridges the gap between nursing and medicine because APNS have a different perspective on health issues than that of staff nurses (Van Soeren & Micevski, 2001).

Methods: Purposive sampling was used to recruit direct-care nurses at St. Vincent Infirmary working on units where APNS are utilized. An anonymous two point Likert scale survey with eight statements and four demographic questions was distributed to all direct-care nurses working on units that utilize APNs. Effect on the direct-care nurse’s practice, comfort of asking question of the APN compared to the physician and the role of the APN as a leader are also addressed. Investigator derived survey was given to 85 direct care nurses. Of those 85 surveys 40 were returned. Data was gathered over a two week period from five inpatient units that presently have APNs worked on them. Data is currently being analyzed.

Outcomes: Pending

Conclusion: The long term goal of this research study is to develop a better understanding of the impact that the APN has on the direct-care nurse’s practice and patient outcomes. Information gathered through research regard the unique impact of APNs in the hospital setting can be used toward development of specific guidelines for this setting.
Ethical Dilemmas of Attitudes and Perceptions in International Critical Care Nursing: Organ Donation
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Significance: According to ARORA, there are currently more than 110,000 people waiting for organs in the United States. Every 14 minutes another person is added to the national waiting list for organs. One third of the people waiting for organs will die before they receive a transplant. Of the 25,000 people who die of a brain or cardiac death each year only 5,500 donate. As healthcare providers we must address nurses’ attitudes, perceptions, and provide education to nurses, patients, and their families about organ procurement.

Purpose (or Problem): Globally, nursing staff have encountered many ethical dilemmas related to organ procurement. The purpose of this study was to address dilemmas with common themes such as disapproval of established protocols, managing stress, understanding brain and cardiac death, religion, culture, moral values, family influences and needs, and lack of education from unit managers and staff.

PICO Format Question: Among international nurses, would education improve organ procurement and lessen ethical dilemmas? The search process was completed using EBSCO host with CINAHL Plus full text articles. Search terms used included organ donation, critical care nursing, attitudes, and ethical dilemmas.

Search Strategy and Quality Screening: An initial search using the term organ donation in EBSCO included 2,133 related articles. The results were narrowed by the addition of the Boolean operator AND with critical care nursing. The search was limited to full text articles published between 2009 and 2013 and yielded 117 results. Narrowing the search to organ donation and nurses’ attitudes resulted in 91 articles. Quality screening included clearly defined perceptions and outcomes of organ donation among ICU nurses.

Evidence: An initial search using the term organ donation in EBSCO included 2,133 related articles. Results were narrowed with the addition of the Boolean operator AND with critical care nursing. The search was limited to full text articles published between 2009 and 2013 and yielded 117 results. Narrowing the search to organ donation and nurses’ attitudes resulted in 91 articles. Relevant literature included studies related to ethical issues, attitudes, and perceptions of nurses around the world who work in critical care and organ donation facilities. Research was published within the last five years and written in English.

Synthesis of Evidence: A quality review resulted in a sample of nine relevant research reports. Three studies showed nurses need more education regarding organ donation, professional responsibilities, and understanding brain death. In one study nurses disapproved of an established protocol for clients who experienced brain or cardiac death. Nine studies discussed theoretical knowledge about attitudes and dilemmas in the organ donor process. Another study indicated concern about mutilation of the body after death and negative reactions of each family. Two reports address the stress of nurses that may be transferred to families.

Conclusions and Recommendations: ICU nurses require more teaching about organ donation and issues related to brain and cardiac death. Nurses need additional research and approved education in understanding responsibilities to patients, families and their wishes in organ donation.

Implications for Nursing Practice: Nurses need to understand brain death and accept established protocols. Organ donation should be discussed to reduce stress and grief within the family. Families should be empowered to participate in organ donation to create something positive from loss of life.
Adding Advanced Practice Nurses to Inpatient Medicine Teams
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UAMS College of Nursing

Significance: Measurable outcomes such as length of stay, readmission rates, and patient satisfaction are more and more critical in healthcare due to recent increasing financial burdens faced by hospitals. Cost effective approaches to providing patient care must be sought if hospitals like UAMS are to remain financially viable.

Purpose (or Problem): The purpose of this literature search was to obtain evidence related to the use of advanced practice nurses in the inpatient acute care setting and the effect on measurable outcomes.

PICO Format Question: In adult inpatient care does adding an APN to the medical team compared with no APN lead to shorter length of stay, improved patient satisfaction, improved communication, improved coordination of care and fewer readmissions?

Search Strategy and Quality Screening: Search terms were inpatient, advanced practice nurse, length of stay, adult, readmission. Search years were limited to 2005 to present and only article types of randomized controlled trials and systematic reviews were requested.

Evidence: Forty-two articles were identified in the initial search in PubMed, Cochrane Database, Google Scholar, and Trip Database. Ten articles were selected for further review and six were selected based on pertinence to desired outcomes.

Synthesis of Evidence: All of the examined articles exhibited evidence to support the use of advanced practice nurses in the inpatient setting to positively impact outcomes. No significant difference was seen between APN-integrated care and MD-usual care in length of stay, readmissions, and patient satisfaction. Significant improvement in communication and coordination of care was evidenced in the APN intervention group.

Conclusions and Recommendations: This focused literature search provided ample evidence to support the addition of advanced practice nurses to the general medicine teams at UAMS as a valuable tool to manage length of stay, readmissions, and patient satisfaction through improved communication and coordination of care. The more significant challenge is changing an institution’s culture, but through strong evidence, timely education, and solid policy, the financial stability of this healthcare organization is an attainable goal.

Implications for Nursing Practice: The adoption of the geriatric team model of APN inclusion by the medicine teams could potentially have an immediate and dramatic effect on the length of stay, readmission rate, and patient satisfaction thus making UAMS not only a more financially viable institution but a team-based, patient-centered healthcare provider meeting the needs of both its employees and the public.
Generational Differences at Work: A Literature Review  
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**Significance:** Generational difference has become a catch phrase when discussing workplace conflict. Four different generations are working alongside each other for the first time in history, and because of their varied life experiences, differences between them could lead to conflict. Conflict can lead to decreased group cohesion and increased turnover. With an expected nursing shortage, understanding differences between generations will be imperative to improving cohesion and increasing retention.

**Purpose (or Problem):** Most generational literature is synopsis and focuses on descriptions of the different generations. Actual empirical evidence describing generational differences seems limited and difficult to identify among the anecdotal information being used. Understanding the state of the literature is needed, so appropriate empirically based interventions and strategies can be developed to decrease multigenerational conflict and improve group cohesion and retention.

**PICO Format Question:** What is the current state of literature regarding generational differences at work?

**Search Strategy and Quality Screening:** Multiple literature databases were searched including CINAHL plus with full text, Health Source: Nursing/Academic Edition, PsychINFO, Socindex with Full Test, Business Source Elite, ERIC full test, and Library, Information Science & Technology Abstracts. Only articles available for the years 2000 and 2012 were reviewed. Search terms used were multigenerational, work, baby boomers, baby boomer, generation x, generation y, and Millennials. These terms were used singularly, and in groups.

**Evidence:** Total articles found numbered 1457. After duplicates and when only including studies comparing generational differences at work, 25 articles remained. After the references list was reviewed and added to the 25 original articles, a final total of 34 research articles were found to be included.

**Synthesis of Evidence:** The articles were arranged into subsections: descriptions, perceptions, and recruitment/retention issues. Some studies furthered the descriptions of an aspect of each generation such as communication styles, work preferences, and contributions to work. Others examined either a generation’s perception of something, or how others perceived that generation. Most common areas researched included work environment and management styles. Most research focused on recruitment/retention issues. These studies investigated generational differences in areas such as intent to leave/stay, job satisfaction, burnout stress, commitment, and values.

**Conclusions and Recommendations:** Generational differences do exist but in some cases the generations are more alike than dissimilar. Understanding the similarities instead of focusing on the differences maybe a better way to improve cohesion and recruitment.

**Implications for Nursing Practice:** Focusing more on similarities and highlighting those aspects within a multigenerational work environment may improve cohesion and decrease conflict.
The Impact of Social Support on Quality of Life in Stroke Survivors
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Significance: The need for support and assistance of stroke survivors can affect their quality of life. Stroke survivors that have support from caregivers can reduce stress on their quality of life.

Purpose (or Problem): The purpose of this study was to determine the impact of social support and health related quality of life of stroke survivors and the impact of their quality of life on family caregivers.

PICO Format Question: What is the impact of social support on health related quality of life for stroke survivors?

Search Strategy and Quality Screening: The researchers used the Cumulative Index of Nursing and Allied Health Literature (CINAHL) and the MEDLINE databases for research. Using the search term stroke extracted 3,610 research reports, Including the Boolean operator OR and the search term CVA yielded 3,641 results. The Boolean operator AND with the search term risk factors generated 3,615 results. Adding the Boolean operator AND with the search term screen* included 3,611 results. The Boolean operator AND with intervention resulted in 3,610 report. AND with the search term nurs* yielded 3,610 results. Searching social support with AND did not change results. Adding caregiver decreased results to 2,593. Methods in this project included a literature search, relevance review, quality critique, data extraction, and synthesis.

Evidence: A review of abstracts resulted in a final sample of eight research reports. The final sample was screened for quality. Data were extracted into an evidence table.

Synthesis of Evidence: Two reports found that depression was likely to occur in stroke survivors and was negatively associated with quality of life. One article reported that half of stroke survivors had symptoms of depression and social support helped to decrease those symptoms. One article described four phases through which the recovery process was slow and complex. One article addressed altered sexuality, sexual desire, and sexual function. Two articles showed social and physical functioning were worse up to 12 months after discharge from the hospital and required clinical assistance. However, evidence showed improvement in quality of life after one year post discharge. One article showed that support to caregivers may reduce strain and enhance quality of life.

Conclusions and Recommendations: We found that social support may increase the health related quality of life such as activities of daily living, social functioning, mental health, depression, sexual desire, sexual functioning, and self-perception.

Implications for Nursing Practice: Nurses should assess social support, encourage social activities, tailor interventions to specific patient needs, and assess the caregiver’s perception. Additionally, an assessment of self-efficacy may be beneficial in tailoring interventions based on patient needs.
Early Skin to Skin Contact Improves Breastfeeding Success
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UAMS College of Nursing

Significance: The practice of breastfeeding provides numerous valuable benefits to both the mother and newborn and has been established as best practice for centuries. Many women lack the information and education to know the positive outcomes resulting from initiating skin to skin contact immediately after delivery. Providing the mother-infant dyad with the opportunity to enhance the achievement of this experience should be highly prioritized in the health care provider’s approach.

Purpose (or Problem): The purpose of this literature search was to obtain evidence to determine if placing newborns in kangaroo care, or skin to skin, with their mothers immediately after birth for the first two hours of life increases success rates in breastfeeding.

PICO Format Question: In newborns at term gestation (greater than or equal to 37 weeks gestation) without complications, does skin to skin contact in the first two hours after birth compared with swaddling lead to/improve successful breastfeeding?

Search Strategy and Quality Screening: We conducted a search using PubMed, Google Scholar, TRIP database, and CINAHL for evidence that could relate to our desired outcome. Search terms included throughout our search in numerous combinations and methods were skin contact, skin to skin, breast, breast-feeding, breastfeeding, swaddle, swaddling, birth, post delivery, and kangaroo care. Years searched were 2005-2012 and article types were limited to intervention studies, randomized control trials, and systematic reviews with available full text. Quality screening focused on interventions, outcomes, timing of outcomes, sampling methods and population, and strength of evidence.

Evidence: Multiple articles were returned through the search methods: 57 through PubMed, 1,560 through Google Scholar, 367 in TRIP database, and 13 in CINAHL. Limiting the results based on year of publication, full text availability, study design, and items which demonstrated outcomes of breastfeeding success, evidence results were narrowed to three nationally and internationally published professional practice guidelines, three randomized trials, and three systematic review studies.

Synthesis of Evidence: All six of the examined studies found that healthy, term newborns without complications at delivery that were placed skin to skin on the mothers chest immediately after birth had more successful, positive signs of breastfeeding sooner than those who were swaddled. All three professional practice guidelines (International Lactation Consultant Association, the Registered Nurses Association of Ontario, and the Academy of Breastfeeding Medicine) also support the placement of newborn infants skin to skin with the maternal chest to improve breastfeeding success. Risks and cost effectiveness were carefully considered, with the benefits attained outweighing in most circumstances. Newborns given skin to skin contact were more likely to establish suckling competence sooner, breastfed more exclusively at discharge, and showed signs of longer breastfeeding practices after discharge than those who did not receive early initiation of skin to skin contact.

Conclusions and Recommendations: Evidence found through research synthesis supported our study hypothesis that showed that early initiation of skin to skin contact between the newborn infant and the maternal chest within the first two hours after birth increases successful breastfeeding. As a result of this knowledge, more emphasis should be placed on education for both the mother and nursing staff to facilitate skin to skin contact immediately after birth.

Implications for Nursing Practice: While nurses are familiar with the approach of skin to skin contact, there may be some preliminary resistance to change in execution. Striving to accomplish this goal remains the primary focus, when possible, in order to uphold the nursing standard of beneficence.
Neutral Head Positioning in the NICU

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Significance: Interventricular Hemorrhage (IVH) in the neonate can lead to serious developmental delays and even death. Preventative nursing interventions may prevent this complication.

Purpose: The purpose of this study is to review evidence from previous studies regarding the most optimal outcome for preterm infants regarding midline head positioning versus rotated head positioning. This paper means to outline the methods for the search, the articles used for the research, and synthesize the information for the most optimal infant outcomes.

PICO Format Question: In a premature neonate less than 32 weeks gestation, does neutral head positioning to midline reduce the incidence of intraventricular hemorrhage (IVH) as compared to turning the head per protocol every 4 hours?

Search Strategy and Quality Screening: Valid study articles from the search included systematic reviews, meta-analyses, and randomized control trials. Excluded articles included those that did not focus their study on neonates, studies focusing on other types of brain injury, studies that did not on some way address developmental positioning of the preterm neonate, and studies published prior to 2002. Databases searched included Google Scholar, the Trip Database, CINHAL, PubMed and the Cochrane Systematic Review Database. Search terms used for each database search included preterm intraventricular hemorrhage, intraventricular hemorrhage in preterm newborns, minimal stimulation in neonatal intensive care, neutral head positions in preterm infants, neutral head positioning, and intraventricular hemorrhage prevention. The method for narrowing search results was to follow the inclusion and exclusion criteria. Studies that did not relate to preterm infants were automatically excluded first. Articles for review that related to other types of brain insult and failed to address infant positioning were excluded as this study relates directly to preterm IVH and positioning.

Evidence: After searching through all databases, four articles were found that provided evidence on using neutral head positioning to prevent intraventricular hemorrhage in the NICU. Therefore, evidence to be provided includes two intervention studies, two professional practice reviews and two systemic reviews.

Synthesis of Evidence: Based on the evidence, we synthesize that head positioning and developmental care should be individualized based on each infant patient. Individualized care and care plans are the best way to ensure appropriate care is being given and to increase the chance of the most optimal outcome.

Conclusions and Recommendations: The results and evidence show that outcomes for preterm neonates are best when clustered and individualized based on the infant. NICU unit protocols and policies should state clear guidelines on a combination of minimal stimulation and individualized care, as well as give clear pathways or algorithms to utilizing individualized, patient centered care with regard to optimal developmental outcomes. Optimal positioning devices, infant behavioral cues, laboratory studies, and head ultrasounds could be utilized to decrease risk and diagnose possible IVH.

Implications for Nursing Practice: Some criteria for future updates to policies and procedures could be gestational age, weight, stability of infant vital signs, and positioning that allows the infant optimal rest and sleep.
Cessation for Procreation
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Significance: The importance of cessation and abstinence of smoking is to prevent potential prenatal and postpartum complications.

Statement of Problem (or Purpose): Pregnant women who smoke are at risk for health problems as well as their neonate. The purpose of this project is to analyze evidence from a focused review of the literature concerning pregnant women who smoke.

PICO Format Question: In pregnant women who smoke, does prenatal and postpartum smoking cessation through smoking cessation programs or drug therapies, compared to temporary cessation of smoking, lead to or improve healthy baby living in a healthy environment throughout their life?

Search Strategy & Quality Screening: To screen the evidence for use, we reviewed the abstracts and titles of different studies. We also checked the date of publication of the articles for accuracy and relevancy to our project.

Search Results: “Cessation of smoking in pregnant women” – CINAHL; “Smoking cessation for pregnant women” – EBSCO were the search titles and databases used. Numerous articles were found over this topic. Many dating within the last 5-10 years since smoking cessation has been educated to the society.

Synthesis of Evidence: To synthesize the evidence, each member critiqued a study concerning smoking cessation and pregnancy. Smoking cessation could be achieved by pregnant women by using nicotine patches, using a reward system and a support system or counselor. Interventions that were similar in the articles were that using a cessation program that had some kind of reward as an incentive, having a strong support system, and someone to hold you accountable were effective methods for cessation.

Conclusions and Recommendations: Promote smoking prevention programs before pregnancy occurs. Provide information about the effects of smoking on the baby during pregnancy, and encourage smoking mother to sign a “Quit Contract.” Encourage attendance to support groups, and provide pharmaceutical interventions (nicotine patch or gum) while educating about laws concerning smoking.

Implications for Nursing Practice: Obstetrician, prenatal, and gynecological nurses could promote smoking prevention and educate about smoking cessation techniques such as those that were found effective through research. They could also educate woman of the effects that smoking will have on their pregnancy and on their baby.
In Patients with Diabetes, How Does Negative Pressure Wound Therapy Compared To Wet-To-Dry Dressings Promote Wound Healing? An Evidence-Based Project

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**Significance:** The Center for Disease Control and Prevention estimates that 20.8 million people have diabetes. Literature indicates that diabetes is very expensive to treat and that most of the cost results from complications from the disease. Diabetic foot ulcers are chronic wounds that require long term treatment. In addition, diabetic foot ulcers possess a high risk for foot amputations. While many factors affect the healing process in diabetic patients, it is important to properly treat the wounds. Many insurance companies deny payment of negative pressure wound therapy due to the expense. However, cost effectiveness and healing time of this treatment compared to wet to dry standard treatment needs adequate evaluation.

**Purpose:** The purpose of this literature review was to determine the effectiveness of negative pressure wound therapy compared to wet-to-dry dressings in patients with diabetes.

**PICO Format Question:** Among patients with diabetes, how does negative pressure wound therapy, compared to wet-to-dry dressings promote wound healing?

**Search Strategy and Quality Screening:** A literature search was conducted to find applicable research articles. PubMed and EBSCO databases were accessed for information. Key terms used included negative pressure wound therapy, diabetic foot ulcers, and wet to dry dressing. Inclusion criteria included articles no more than five years old, evaluation of negative pressure wound therapy and wet to dry dressings, and evaluation in diabetic patients.

**Evidence:** Seventy-two articles were retrieved from the two databases with three including all three variables. From these five articles were chosen with strongest research design. Three of the articles featured an experimental design.

**Synthesis of Evidence:** All studies reviewed indicated that negative pressure wound therapy is more successful in treating diabetic foot ulcers than wet to dry dressings. Studies demonstrated that a significant increase in the amount of granulation tissue occurred when negative pressure wound therapy was applied and a larger number of complete diabetic ulcer closures resulted. Additional results included improved healing times and lower cost for care with the use of negative pressure wound therapy.

**Conclusions and Recommendations:** These studies support the greater benefits of negative pressure wound therapy when compared to wet-to-dry dressings. Based on the results, insurance companies should acknowledge this treatment and reimburse accordingly. Negative pressure wound therapy should be considered for the treatment of all diabetic foot ulcers.

**Implications for Nursing Practice:** By being up to date with this method of wound care, nurses can advocate the correct treatment for their patients.
The Drinking Heart
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Significance: The study is very important because there is a high mortality rate for people with heart disease. According to the American Heart Association, cardiovascular disease accounted for 33.6% (813,804) of all 2,423,712 deaths in 2007 in the United States. On average, 2,200 people die of cardiovascular disease each day in the United States, one death every 39 seconds. Thus, any research study contributing to evidence based practice affecting the prevention of cardiovascular disease is highly needed.

Statement of Problem (or Purpose): The focus of the literature review is to identify red wine as having a more desirable effect on reducing cardiovascular disease as compared to dealcoholized red wine. Three studies were evaluated to determine the differences between red wines and dealcoholized red wine, plus the components of each that contribute to anti-inflammatory effects on the heart.

PICO Format Question: In individuals at risk for heart disease who are undergoing preventative measures, is the intake of 1 cup of red wine for women a day and 2 cups of red wine for men a day beneficial in reducing the effects and advancements of heart disease?

Search Strategy and Quality Screening: In the database EBSCOHOST we found 10 articles, narrowed them down to 5 just because of the title and date of study. After reviewing the abstracts and we narrowed it down to 3 articles because of the information found in the discussions.

Search Results: The three articles each compared results from alcoholic and nonalcoholic red wine.

Synthesis of Evidence: Three articles were examined to determine how red wine affects the human heart and potentially prevents the production of cardiovascular disease. After analyzing the results of all three studies, two out of the three ascertain findings that support the effects of dealcoholized red wine as having a slight, yet statistically significant advantage as compared to red wine having a more desirable heart related health benefit. Dealcoholized red wine contains the same amount of polyphenols as red wine without the large content of ethanol. Therefore, it can be suggested that the moderate consumption of dealcoholized red wine produces a greater effect related to the prevention of cardiovascular disease, especially coronary heart disease.

Conclusions and Recommendations: All three studies that were analyzed proved to contain several limitations; therefore, a definite need for further study is warranted. All three studies had sample sizes smaller than 100 participants, were the first studies to research about that specific topic, and chose specific criteria for the sample participants not allowing the findings to be valid for a vast population. Although our research proved the intervention to be beneficial towards preventing cardiovascular disease, further and more effective research must be completed for a nurse to be able to implement the consumption of moderate amounts of dealcoholized red wine into practice as evidence based.

Implications for Nursing Practice: With cardiovascular disease as the leading cause of death in the United States, nursing practice is tremendously affected. Nurses must be knowledgeable of risk factors, learn how to alleviate those risks, and implement interventions into practice that promote the optimum health of the patient.
Establishment of School-Based Mental Health Programs: An Evidence-Based Literature Review
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Significance: School violence is an epidemic that spans cultural and socioeconomic divides, and has a detrimental impact on all those it touches. Oftentimes the ‘how’ and ‘why’ violence happens remain unexplained. The World Health Organization (WHO) defines health as “…a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” With that definition in mind, it is essential that we address the gap in mental health care. While profiling potential perpetrators of violent acts is nearly impossible, using school-base programs to support the mental health needs of all adolescents is a feasible solution. Today’s youth need to be equipped with appropriate psychosocial tools and coping skills to handle stressful life situations. By doing so, we will be able to ensure a healthier, productive future for them, and along the way, potentially identify those at greater risk of violence.

Purpose (or Problem): The purpose of this poster is to review literature associated with mental health programs and ascertain whether the establishment of these programs in middle school and high school will help equip youth with healthy life skills as well as identify students at risk of violence.

PICO Format Question: Would establishing mental health programs in middle school and high school decrease the incidence of school-associated violent acts?

Search Strategy and Quality Screening: A comprehensive literature review was performed in the following databases: CINAHL, PubMed, Google Scholar, and Ovid. Initial search terms utilized were: mental health, mental health service, school violence, adolescent mental health programs and public schools. As the search progressed, additional search terms were added: school based mental health, age of onset, mental illness and violence. Articles were limited to the years 2005-2013, peer-reviewed and English language articles.

Evidence: The literature review returned the following number of articles: 37 in CINAHL, 2,417 in PubMed, 83 in Google Scholar and 55 in Ovid. Once duplicates were eliminated, the remaining articles were quickly evaluated to determine if they met the following criteria for inclusion: studies that specifically address mental health programs, adolescents and school violence. Final literature results appropriate to answer our PICOT question included 16 articles.

Synthesis of Evidence: School-related homicides remain rare events (accounting for 1% of child/youth homicides) but over 1.9 million 12 to 15 year olds are victimized at school. Reviewed literature concurred that attributes such as bullying and victimization can be predisposing factors for future violence. Since most youth violence emerges during the second decade of life, it is suggested that early intervention (in the form of school programs) be instituted. In a study by Botvin, et al. 41 schools were randomly assigned to either an intervention or a control group: 20 of the schools participated in a prevention program that focused on violence, anger management and conflict resolution skills. Results indicated that these school-based programs were able to prevent violence and delinquency. The National Longitudinal Study of Adolescent Health also pointed out that youth who feel connected to their school engage in fewer violent behaviors over time.

Conclusions and Recommendations: School based mental health programs can be an effective means to engage students. By instituting school-based programs for all students, and not just those deemed ‘at-risk’, we can help equip youth to handle issues such as normal life and school stressors, bullying, as well as, address barriers between groups.

Implications for Nursing Practice: Nurses that are equipped to address mental health needs will be instrumental in the success of these programs. Partnering across the continuum of patient care will ensure that adolescents receive the holistic care they need.