Moving Forward: Update on the LVHN Nursing Work Environment

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Enhancing Nursing Research Capacity through a Collaborative Academic-Service Partnership

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This Presentation

- Purpose – To tell the journey of how a collaborative partnership, between two academic institutions and one Magnet designated regional health network evolved
  - Success!!
    - built on strong bonds from the past
    - willingness of leadership to take a risk and view future possibilities

- Two-fold:
  - Collaborative Academic-Service Partnership
    - Mae Ann Pasquale – Assistant Professor, Cedar Crest College
  - Update on the Missed Nursing Care in a Multicampus Regional Health Network study and next steps
    - Tricia Bernecker – Associate Professor, DeSales University
Objectives

- **Describe the features that characterize a Collaborative Academic-Service Partnership**

- **Detail initiatives to create an infrastructure to advance nursing research into clinical and operational processes.**

- **Identify types of and reasons for missed nursing care.**
The Partnership:
Who are we??
Who We Are

• 5 Campuses
• 1 Children’s Hospital
• 136 Physician Practices
• 17 Community Clinics
• 11 Health Centers
• 9 ExpressCARE Locations
• 34 Testing and Imaging Locations
• 13,100 Employees
• 1,340 Physicians
• 582 Advanced Practice Clinicians
• 3,700 Registered Nurses
• 60,585 Admissions
• 208,700 ED visits
• 1,161 Acute Care Beds
DeSales University

• Private Catholic university for men and women, Center Valley, PA
• 1,606 full-time undergrad students
• 3,188 total full-time enrollment for traditional, graduate, and evening (ACCESS) students
• 13% minority; 32 states – 6 countries
• Nursing – BSN, RN to BSN, MSN, MSN/MBA, DNP
Cedar Crest College

- Private liberal arts college for women, Allentown, PA
- Co-educational School of Adult and Graduate Education (SAGE)
- More than 1,400 students from 27 states and 20 countries.
- Nursing – BSN, RN to BSN, MSN, School Nurse Certificate
So how did this all start??

- Fall of 2010
- LVHN Transformational Framework
- Very stimulating work but spending lots of time at LVHN
- Were there options?
- As always…Went to the literature!!
Talk about timing!!

- October 2010 - *The Future of Nursing – Leading Change, Advancing Health*
- Major initiatives to redesign both nursing education and practice to better prepare nurses to lead during healthcare reform and beyond
- Closer collaboration between practice and academia to ignite change
- Academic and service institutions to rethink their relationships with each other and align new ways for a competent professional workforce.
- This realignment was crucial
  - recruitment and retention of nurses and nurse educators
  - changing nursing roles
  - society’s changing health care needs
One KEY-IMPORTANT thought...

- Neither academia nor practice can work at the desired level of excellence without the perspective and insights garnered from each.
  - Need to work together to lead and manage collaborative efforts to conduct research and to redesign and improve practice environments and health systems

(IOM, 2010)
Is an Academic-Service Partnership the answer?

- The IOM’s call was urgent and compelling!!!
- Consider the IOM goals - academic and service leaders need to work together
- Academic-Service Partnerships (ASPs) – strategic relationships between educational and clinical practice settings that are established to advance the mutual interests related to practice, education, and research (AACN-AONE Task Force, 2011).
- Such relationships require common values and interests, engagement in common goals, communication, mutual respect and trust and honesty about individual interests (Harvath et al., 2007; McNamara, 2000).
So we got to work!

- Lit search - best practices in ASPs
- Proposed Leadership
  - Community Health and Health Studies
  - Patient Care Services
- Seek funding
  - Dorothy Rider Pool Health Care Trust
    - To enhance the development of evidence-based methods intended to improve the health status of residents in the Lehigh Valley;
    - To engage clinical leadership through the provision of systematic data so that informed program and clinical decision can be formulated
- Time was right to move forward per the IOM and by building on past successes
- Should we consider more than just one school?
History of Academic-Service Partnerships

- Many different types of academic service/practice partnerships for the last 20 years
- Partnerships between academic and health service centers are increasingly valuable (Granger et al., 2012).
  - Important to nursing education and to the promotion of excellence in nursing practice
- Evidence for the success is lacking in the professional literature
- Mostly anecdotal
  - Informal evaluation has occurred, very few of the innovations have been formally studied.
- Limited in generalizability by small non-representative samples in single locations
Types of Partnerships

- ASPs widely discussed in the literature.
  - Agreed partnership between an academic institution and a healthcare organization to place a faculty member in the practice setting

- Faculty Practice Models
  - 1950’s - Innovative approach to care for vulnerable populations
  - Academic Nursing Center - housed in a university and staffed by faculty
  - Joint Appointments (Sawyer et al., 2000)

- Centers for Research and Evidence-based Practice

- Workforce Development Initiatives (Robert Wood Johnson Foundation, 2010)
Effective Partnerships

- **Established relationships at the highest levels of leadership and academe** (Karshmer, 2010)
  - Formal contract established for hours, compensation
- **Clear articulation of vision and expectations** (McVey, Vessey, Kenner & Pressler, 2014)
  - Shared philosophies
  - Mutual agreement on roles and expected outcomes
  - Mutual interests with set evaluation periods
- **Relationship is built on respect and trust** (MacPhee, 2009)
- **Knowledge and credit is shared among partners** (AACN-AONE Task Force, 2011)
Benefits of Partnerships

- Strength and power in mutual goal setting
- Increased visibility and esteem for nursing’s contribution to health care delivery
- Maximization of resources
- Enhanced opportunity for faculty to remain current to clinical practice
- Opportunities to educate students and staff
- Increased research capacity
- Facilitation of evidence-based practices

(Bleich et al., 2004)
Challenges

- Time constraints
- Need to juggle multiple schedules and projects
- Lack of resources
- Lack of communication

(Bleich et al., 2004)
Exemplary Models

- Duke Translational Nursing
- UNC- Chapel Hill
- University of Texas Health Sciences
- Albert Einstein and LaSalle University
- Cooper University Hospital and Rutgers
- Crozier-Chester Hospital and Widener University
- But...we are unique😊
LVHN Collaborative Academic-Service Partnership

▪ To develop a contractual partnership, between LVHN and two local Departments of Nursing, with the primary goal of conducting research, and secondary to implement EBP for advancing nursing practice to improve the health of the public;

▪ To pool expertise from both academic and health services to build evidence of the impact of this relationship on healthcare innovations, research, quality of care and the development of future nurse leaders;

▪ To enhance the clinical innovation of professional nurses at LVHN through the investigation of effective solutions to complex issues by providing access to doctoral prepared nursing faculty.

▪ Developed in concert with the recommendations from the Future of Nursing Report
  - Create systems for nurses to achieve educational and career advancement
  - Prepare nurses of the future to practice and lead
  - Provide mechanisms for lifelong learning

(IOM, 2010)
Specific Aims

▪ Develop a sustainable model for an academic-service partnership between LVHN and two local nursing departments that will foster collaboration and mentorship for the conduction of research and EBP

▪ Create a local nursing culture that encourages and supports the conduct of nurse-driven research

▪ Advance nursing science through the improvement of patient care outcomes by the development and use of evidence in the delivery of care

▪ Enhance the translation of research/EBP findings to clinical practice and nursing education

▪ Build a future nursing workforce prepared to lead healthcare innovation
Evolution of the Academic Partnership

- Proposal was approved in September 2011
- Funded for 2 years! - Pool Trust / FARR Fund (Thank you!)
- Official start - January 2012
- Contractual Agreement:
  - Role description, responsibilities, and projected outcomes
  - Financial agreement
    - Buyout of faculty time (25%) including salary and benefits (3 credits fall and spring)
    - About 1 day per week at LVHN and attend meetings PRN
    - Payments made to academic institutions
    - Negotiated every 2 years
- Initial Oversight
  - Department of Community Health and Health Studies
    - Deborah Swavely, DNP, RN, Administrator
  - Patient Care Services
    - Anne Panik, MS, BSN, RN, NEA-BC, Sr. Vice President
Year 1

Goals

- Academic Partners (APs) will be members of EBP/NRC
- APs will lead at least one research project aligned with a LVHN major initiative.
  - To fully understand the complexity of delivering nursing care, the CNO recommended a research study on the nursing work environment to determine the factors affecting care delivery
  - Specifically evaluate aspects of Missed Nursing Care
Year 1 goals met!

- Active participation in NEBP/RC
  - EBP Fellows² going on

- Analysis of Missed Nursing Care in a Multicampus Regional Health Network
  - Endorsed by CNO and Administrators
  - IRB approval
  - 21 medical-surgical units, 2 RN/TP Float pools at 2 sites
  - 8 weeks of data collection
  - Purpose: To evaluate missed nursing care, teamwork, and HWE
  - January 25, 2013 start date!
    - Prior to start date, attended meetings, went to all participating units and hung flyers

- Joined LVHN Research Day Planning committee
Year 2

- Jan 2013 – change in nursing research structure
- Partnership now aligned with Patient Care Services
  - Sponsors
    - Anne Panik, MS, BSN, RN, NEA-BC, Sr. Vice President, Pt Care Services
    - Carolyn Davidson, PhD, RN, CCRN, ARNP, CPHQ, Administrator, Quality/Clinical Excellence
    - Collaborate - Network Office of Institutional Research (NORI)
- Continue Missed Nursing Care study with CHHS
  - Kathy Baker, MPH, RN
  - Carol Foltz, PhD
  - Michelle Flores, BSN, RN
Year 2 cont’d

- AP role really begins to expand!
- NEBP/RC
  - Lead a council’s workgroup
  - Review proposals for EBP Nurse Fellowship – 2nd year
- Nursing Research Review Committee (NRRC)
  - Helped to restructure
  - Review nursing research proposals
- LVHN Research Day Planning Committee
- Graduate Nurse Residency Program Advisory Board
  - Perfect collaborative fit!
- Completed analysis of Missed Nursing Care Study
- Invited to Future Search 2020 Steering Committee
Year 2 goals met!

- **NEBP/RC**
  - Review proposals for EBP Fellows
  - Didactic support for EBP Fellows PRN

- **NRRC**
  - Reviewed nursing research proposals

- **LVHN Research Day Planning Committee**
  - Secured keynote Bridgette Brawner, PhD, RN
  - Developed Research Jeopardy
  - Keynote: Missed Care

- **Graduate Nurse Residency Advisory Board**
  - Awesome and happy to be at the table!

- **Future Search 2020**
  - Offered insight and lead workgroups
  - Brought students to the table
BASELINE SURVEY
EXPLORES 'MISSED CARE'

Missed nursing care – patient care that is omitted or significantly delayed – happens with regularity at hospitals across the U.S. To find the root cause for missed nursing care at Lehigh Valley Health Network (LVHN), visiting nurse scientists Tricia Bernecker, PhD, RN, DeSales University, and Mae Ann Pasquale, PhD, RN, Cal. Gen. units, two RN float pools and two TP float pools to participate in this Institutional Review Board-approved study.

“We went through rigorous steps to assure anonymity,” Pasquale says. “We wanted the RNs and TPs to be candid with their responses and not worry about repercussions.”

Data was collected from January to March 2013, and the researchers hoped for 50.

MOST FREQUENT MISSED CARE ITEMS:

- Ambulation three times per day or as ordered: 82%
- Attendance at interdisciplinary patient care conference: 69%
- Medications administered w/in 30 min. scheduled time: 66%
- Turning patient every two hours: 63%
Year 2 goals met!

- **Analysis of Missed Nursing Care in a Multicampus Regional Health Network**
  - Completed July 2013!
  - Keynote - LVHN Research Day 2013
  - Keynote - ESU – Night of Research
  - Abstracts – ENRS, Magnet
  - Manuscript – Nursing Research/Research in Nursing and Health in progress

- **Critical Care Missed Care Proposal development**
  - Instrument reliability/validity conducted
  - Grant to STTI- 😞
Year 3

- Going strong as ever!!!
- Continue active involvement on committees
  - EBP/NRC
  - NRRC
  - Research Day Planning Committee
  - Graduate Nurse Residency Advisory Board
- Continue current research initiatives
  - F/U Missed Nursing Care
    - Focus groups
    - Abstracts/publish/present
  - Critical Care Missed Care Study
    - Validated instruments
    - Need IRB approval
    - Look for funding- AACN/ANA
- New Research Initiatives!
Update:
Missed Nursing Care in a Multicampus Regional Health Network
The Journey

- **February 2012 dove into the literature**
  - **Qualitative Study** – Kalisch (2006)
  - **Concept Analysis** - Any aspect of required patient care that is omitted (either in part or in whole) or delayed (Kalisch, Landstrom, & Hinshaw, 2009).

- **The MISSCARE Survey** - measures missed care including the type of missed care, the extent of missed care, and the reason for missed care (Kalisch & Lee, 2010).

- **Nursing Teamwork Survey** (Kalisch, Lee, & Salas, 2010).
Why Include the Work Environment?

- **Missed Care and Patient Outcomes Known:** Failure to ambulate patients - new-onset delirium, pneumonia, delayed wound healing, pressure ulcers, increased LOS and delayed discharge, increased pain and discomfort, muscle wasting and fatigue, and physical disability….. Failure to provide mouth care – Hospital acquired pneumonia.

- Also can lead to job dissatisfaction, which can result in greater turnover and nursing shortages (Kalisch, Tschanen, & Lee, n.d.).

- Nurses/staff want to do a “good” job and feel distressed when they don’t complete all of the care they feel a patient needs.

- Nurses to Nurses (N2N) Work Environment Instrument - Assesses individual and co-worker’s contributions to a healthy work environment (Mays, Harabe, & Stevens, 2011).
Additional Input from Nurse Experts

- Open ended questions after each instrument

  - Do you have any other comments about missed care?
  
  - Do you have any other comments about teamwork?
  
  - Do you have any other comments about the work environment?
An In-depth Analysis of the Nursing Work Environment in a MultiCampus Regional Health Network

- July 2012 final edits to proposal presented to the Research Review Committee
- IRB Approval - Jan 2013
- Study presented to PCOC, RN Advisory, TP Advisory and EBP/NRC for buy-in
- Investigators rounded on participating units to talk with staff, hang flyers, assure anonymity with aggregated data
- 1051 RNs/TPs sent a secure email inviting them to participate
  - Instruments via Survey Monkey- 20 min to complete
- Email reminders to non-responders to increase participation rate
- Data collected during an 8-week period between January and March, 2013

739 of you replied!!! A 70% response rate - AMAZING
Results
What is the amount and types of missed nursing care on inpatient medical surgical units?

- **Most frequently missed care activities:**
  - Ambulation 3 times per day or as ordered (82%)
  - Attendance at interdisciplinary patient care conference (69%)
  - Medications administered w/in 30 min scheduled time (66%)
  - Turning patient every 2 hours (63%)
  - Assess effectiveness of medications (61%)
  - Response to call light is initiated within 5 minutes (61%)

- **Least frequently missed care activities:**
  - Completion of patient assessments each shift (9%)
  - Glucose monitoring (11%)
  - Hand washing (18%)
  - Patient discharge planning and teaching (19%)
  - IV/central line site care & assessments hospital policy (27%)
  - Skin/wound care (28%)
## Results

### What are the reasons for missed nursing care on inpatient medical surgical units?

<table>
<thead>
<tr>
<th>Reasons Ranked Most to Least Important</th>
<th>Subscale</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unexpected rise in patient volume and/or acuity on unit</td>
<td>LR</td>
<td>3.30</td>
</tr>
<tr>
<td>Inadequate number of assistive and/or clerical personnel</td>
<td>LR</td>
<td>3.27</td>
</tr>
<tr>
<td>Heavy admission and discharge activity</td>
<td>LR</td>
<td>3.27</td>
</tr>
<tr>
<td>Inadequate number of staff</td>
<td>LR</td>
<td>3.22</td>
</tr>
<tr>
<td>Urgent patient situations</td>
<td>LR</td>
<td>2.95</td>
</tr>
<tr>
<td>Medications were not available when needed</td>
<td>MR</td>
<td>2.84</td>
</tr>
<tr>
<td>Unbalanced patient assignments</td>
<td>COM/TW</td>
<td>2.77</td>
</tr>
<tr>
<td>Supplies/ equipment not available when needed</td>
<td>MR</td>
<td>2.77</td>
</tr>
<tr>
<td>Supplies/ equipment not functioning properly when needed</td>
<td>MR</td>
<td>2.54</td>
</tr>
<tr>
<td>Lack of back up support from team members</td>
<td>COM/TW</td>
<td>2.48</td>
</tr>
<tr>
<td>Nursing assistant did not communicate care was not provided</td>
<td>COM/TW</td>
<td>2.47</td>
</tr>
<tr>
<td>Other departments did not provide the care needed</td>
<td>COM/TW</td>
<td>2.40</td>
</tr>
<tr>
<td>Tension/communication breakdowns with the medical staff</td>
<td>COM/TW</td>
<td>2.35</td>
</tr>
<tr>
<td>Inadequate hand-off from previous shift or sending unit</td>
<td>COM/TW</td>
<td>2.33</td>
</tr>
<tr>
<td>Tension/communication breakdown with support department</td>
<td>COM/TW</td>
<td>2.26</td>
</tr>
<tr>
<td>Tension/communication breakdown within the nursing team</td>
<td>COM/TW</td>
<td>2.24</td>
</tr>
<tr>
<td>Caregiver off unit or unavailable</td>
<td>COM/TW</td>
<td>2.01</td>
</tr>
</tbody>
</table>
Results

What is the perception and relationship of nursing teamwork and missed nursing care?

Higher teamwork scores were significantly related to less missed care ($p < .0001$).

What is the perception and relationship of the work environment and missed nursing care?

Perceptions of one’s own and one’s co-workers’ contribution to a healthy work environment were both significantly related to less missed care ($ps < .0001$).
Results and Dissemination

- A unique finding was “documentation” not only being noted as an element of missed care (i.e., failed to document), but “too much time spent on documentation” being a reason for missed nursing care.
- The finding is timely, given the focus on electronic records as a means of improving the delivery of healthcare, and requires further research.
- Disseminated to stakeholders
- Submitted for poster/podium presentations
- Manuscript submission
Need to Study in Critical Care

- Listened to nurses and technical partners in the network that they wanted to explore missed care in critical care.
- Will this add additional insight to interventions?
- Is documentation a concern related to missed care in critical care?
The MISSCARE Survey (Part A)

- 1) Ambulation three times per day or as ordered
- 2) Turning patient every 2 hours
- 3) Feeding patient when the food is still warm
- 4) Setting up Meals for Patients who feeds themselves - Check tube feedings aspirate every 4 hours
- 5) Medications administered within 30 minutes before or after scheduled time
- 6) Vital signs assessed as ordered
- 7) Monitoring intake/output
- 8) Full documentation of all necessary data
- 9) Patient/Family teaching about illness, tests, and diagnostic studies
- 10) Emotional support to patient and/or family
- 11) Patient bathing/skin care
- 12) Mouth care
- 13) Hand washing
- 14) Patient Discharge planning and teaching - Suction patient every 2 hours
- 15) Bedside glucose monitoring as ordered
- 16) Patient assessments performed each shift
- 17) Focused reassessments according to patient condition
- 18) IV/central line site care and assessments according to hospital policy
- 19) Response to call light/alarm is initiated (within 5 minutes) - promptly
- 20) PRN medication requests acted on within 15 minutes
- 21) Assess effectiveness of medications
- 22) Attend interdisciplinary care conferences whenever held
- 23) Assist with toileting needs within 5 minutes of request
- 24) Skin/Wound care
For assessment of Item Content Validity Index (I-CVI) and Scale Content Validity Index (S-CVI) eight registered nurse experts were identified.

These nurse experts received an electronic letter of request and directions concerning the instruments content validity process.

All eight experts returned the instrument scored. A 4-point scale of relevance was used. The following scale was used: 1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, and 4 = very relevant.

The I-CVI was computed by the number of raters giving ratings of 3 or 4 divided by the number of experts for each item. All items with six to 10 experts must have a minimum I-CVI of .78. Therefore, four items needed to be deleted: 1) Ambulation three times per day or as ordered, 3) Feeding patient when food is still warm, 6) Vital signs assessed as ordered, and 14) Suction patient every 2 hours.

With these items deleted the S-CVI was .94 for 20 items. A S-CVI of .90 greater is considered acceptable. When administered, Chronbach’s alpha coefficient of internal consistency reliability will be computed for this study.
1) Ambulation three times per day or as ordered
2) Turning patient every 2 hours
3) Feeding patient when the food is still warm
4) Check tube feedings aspirate every 4 hours
5) Medications administered within 30 minutes before or after scheduled time
6) Vital signs assessed as ordered
7) Monitoring intake/output
8) Full documentation of all necessary data
9) Patient/Family teaching about illness, tests, and diagnostic studies
10) Emotional support to patient and/or family
11) Patient bathing/skin care
12) Mouth care
13) Hand washing
14) Suction patient every 2 hours
15) Bedside glucose monitoring as ordered
16) Patient assessments performed each shift
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18) IV/central line site care and assessments according to hospital policy
19) Response to call light/alarm is initiated promptly
20) PRN medication requests acted on within 15 minutes
21) Assess effectiveness of medications
22) Attend interdisciplinary care conferences whenever held
23) Assist with toileting needs within 5 minutes of request
24) Skin/Wound care
Missed Nursing Care in Critical Care Study Coming Soon!

- In IRB
- Met with Critical Care Leadership, have support
- 11 critical care units and float pools. RN and TP’s at LVHN’s campuses (Cedar Crest: NSICU, 2K South, Cardiac ICU(CICU), OHU, 2K-MICU/SICU, TNICU, Center for Critical Care Float Pool, OHU/TOHU Float Pool, Cardiac Float Pool, Burn; Muhlenberg: ICU-M)
- Investigators will round on participating units to talk with staff, hang flyers, assure anonymity with aggregated data, provide date that will receive the email
- Send a secure email inviting them to participate
  - Instruments via Survey Monkey- 20 min to complete
- Email reminders to non-responders (units) to increase participation rate
- Data will be collected during an 8-week period
Next Steps

▪ You want it fixed!!

▪ Analyze data from the “Analysis of Missed Nursing Care in Critical Care on a Multicampus Regional Health Network” study
  • Including reliability of adapted instrument and if documentation a concern in this specific setting

▪ Perform focus groups of patient care units with high levels of missed nursing care – IRB extension requested

▪ Strategies for developing interventions to decrease missed care and increase teamwork
Research Fellowship

It Is Coming!!

- Direct care RNs opportunity to serve as principal investigators for research studies
- Excellent Model – EBP (Evidence Based Practice) FellowS (Sharing Science) Program
- Feasible
- Infrastructure in place for support
- Goals- generating knowledge, outcomes, and nursing research becoming part of the professional nursing culture
Year 3 Goals to date...

- **Committee Involvement**
  - EBP/NRC
  - NRRC
  - Research Day Planning Committee
  - Graduate Nurse Residency Advisory Board

- **Current research initiatives**
  - Investigate Work Environment/Missed Care in Critical Care
    - Validated instruments
    - IRB approval pending
    - Look for funding - AACN/ANA
  - F/U Missed Nursing Care
    - Plan focus group research with high and low performing units from Missed Care Study
    - Design intervention study based upon findings from missed care research
    - Simulation study with LVHN/Partners

- **Research Fellowship – Spring**
- **Abstracts**
  - ENRS
  - AONE

- **Manuscript – Nursing Research/Research in Nursing and Health in progress**
The Academic-Service Partnership and You!

- Nurse Residency
- EBP Fellow$^2$
- Nursing Research Fellowship
- Students (RN-BSN, BSN, MSN, DNP, PhD)
- Advancing Nursing Science – Outcomes!!
Questions?

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