Influencing Health through Community-Engaged Hospitals

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Objectives

- Define hospital community orientation.
- Describe the characteristics and consequences of hospital community orientation.
- Discuss selected hospital-based EBP and QI project exemplars that extend into the community.

Community

- A feeling of fellowship
- A political entity
- A functional spatial unit meeting sustenance needs
- A unit of patterned social interaction
- An interacting population of various kinds of people in the same location.

(Leroy, Bilbeau, Steckler, & Glanz, 1988)

Socio - Ecological Model

Individual
Interpersonal
Institutional
Community
Policy

Community Orientation

- A set of activities that healthcare organizations must perform to manage community health.
- Organization wide generation, dissemination and use of area intelligence to address present and future community needs (Proenza, 1998).
- Indicators of community health orientation
  - Long term planning to improve community health
  - Commitment of resources for community benefit
  - Conducting community health assessments to identify unmet community needs
  - Use of health status indicators
Community Orientation Scale

- Does your:
  - hospital's mission statement include a focus on community health?
  - hospital have a long-term plan for improving the health of its community?
  - hospital have dedicated staff to manage community benefit activities?
  - hospital provide support for community building activities?
  - hospital make financial contributions, provide in-kind support, or participate in fundraising or community programs not directly affiliated with the hospital?
  - hospital work with your local school system to offer health or wellness programs to your community?
  - hospital work with other providers, public agencies, or community representatives to conduct a health status assessment of the community?
  - hospital work with other providers to collect, track, and communicate clinical and health information across cooperating organizations?
  - hospital disseminate report to the community on the quality and costs of health care.

Factors that Influence Hospital Community Orientation

- Organizational Factors
  - Hospital ownership
  - Hospital size
  - System and Network Affiliation

- Environmental Factors
  - Scarcity or abundance of resources
  - Degree of instability or uncertainty
  - Market complexity

Consequences of Hospital Community Orientation

- Benefit to the Community
  - Provision of uncompensated care
  - Community engagement
  - Reasonable pricing of services

- Benefit to the Hospital
  - Higher quality care
  - Higher patient satisfaction with care

What does Community Orientation Look Like at the Macro Level?

- Health Screenings
- Nutrition Programs
- Community Outreach
- Population Health Departments

What about Community Orientation at the Micro Level?

- Does community orientation bubble up from the bedside caregiver?
  - Outreach to and engagement with community
  - Innovation at the bedside
  - Assessment of community need from bedside caregiving

Example 1: Lose the Whoosh
An EBP Project to standardize NG tube verification practice and align practice with evidence across the pediatric units.

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Evaluating Evidence and Practice

- **Literature Synthesis**
  - The "gold standard" for confirming the position of a NGT is a radiograph. However, radiograph is inappropriate and harmful for frequent and routine use and only provides a snapshot in time of the NGT location.
  - Lose the Whoosh: Auscultation is ineffective in verifying tube placement.
  - A combination of methods to verify placement, such as pH testing and tube measurement marking, are recommended.

- **Performance Gap Assessment**
  - 74% of respondents accurately indicated that the primary problem with auscultation is that sounds can be transmitted to the epiglottis regardless of tube location.
  - Across units, auscultation was the most likely to be used strategy; checking pH was the least likely to be used strategy.
  - Less than 10% of respondents accurately indicated the pH of stomach aspirate (pH = 1.0-5.0).
  - Years of experience was not related to the likelihood of using a particular tube placement verification strategy.

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**Evaluation of Practice Change**

- **Chart Audit for Adherence to Protocol**
  - 231 NG/OG insertion events.
  - 23% checked for placement on insertion with CXR.
  - Of those without CXR, 65% had pH check documented.
  - Of those without CXR and pH, 15% documented inspection of visual aspirate.

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**Evidence-based Algorithm for Management of Naso/orogastric tubes in infants and children**

Initial Insertion
(Abdominal x-ray not obtained)
- Check markings on tube match those on medical record
- Check pH of aspirate (pH = 5.0). If still unable to aspirate, advance or retract tube
- If sound is transmitted to the lung, stop and attempt aspiration
- If sound is not heard, the tube may be misplaced. Inject 10 mL of air into the lumen to determine if the tube is in the abdominal cavity, chest, or intestine
- Reposition infant and attempt aspiration
- If still unable to aspirate, increase or decrease pressure and attempt aspiration
- If still unable to aspirate, inject 10 mL of air into the lumen and observe positioning
- Confirm position following insertion and prior to administration of any medications or fluids
- Increase in staff knowledge
- Literature Synthesis
  - Quantitative evidence
  - Qualitative evidence

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**Evaluation of Practice Change**

- **Staff Perceptions of the Impact of the NG/OG Algorithm on Practice**
  - My practice has changed since implementation of the NG/OG Algorithm

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**Evidence-based Algorithm for Management of Naso/orogastric tubes in infants and children**

1. **Implementation Strategy**
   - Staff training at fall skills competency fair
   - Recruited a champion from each unit
   - Developed unit-specific processes for obtaining and storing pH paper
   - Changes to EMR to support documentation

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**Evaluation of Practice Change**

- **Increase in staff knowledge**
- **Increased use of pH checks**
Expanding Project Impact

• Developed education plan and resources that were incorporated into EMR to provide consistent and comprehensive parent education.
• Pediatric Subspecialty Clinic launching a coordinated clinic day to meet needs of families related to feeding assistance.

Example 2:
CALM—Coping Assessment for Laboring Moms
An EBP Project to improve strategies for assessing pain and assisting women in coping with pain in the Labor and Delivery Unit.

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Project Triggers

❖ Opportunity to improve Patient Satisfaction with their labor experience.
❖ Need to meet Joint Commission pain assessment requirements.
❖ Opportunity to improve performance related to Healthy People 2020 National Goal
  o Reduce cesarean births among low-risk (full-term, singleton, and vertex presentation) women to 23.9%

Evaluating Evidence

❖ ACOG Position Statement (2017)
  o Recommend use of a coping scale in conjunction with tailoring non-pharmacologic and pharmacologic interventions to best meet needs of each woman.

❖ Coping with Labor Algorithm (Roberts, Gulliver, Fisher, & Cloyes, 2010)
  o Developed by a team of nurses at The University of Utah
  o Associated with improved nurse satisfaction
  o No adverse outcomes identified

Current Steps

Implementation
❖ Interdisciplinary, nurse-led team formed.
❖ On-line staff training module developed and ready to implement.
❖ Modifications made to EPIC
  o "What are your plans to manage your pain during labor?"
  o Incorporating the Coping Algorithm
  o "How are you coping with labor?"
❖ Obtaining and stocking non-pharm intervention cart.

Evaluation
❖ Staff adherence to protocol through chart audit
❖ Patient Outcomes
  o NTSV cesarean rate
  o Epidural rate
Expanding Project Impact

“We really need to back this up into the OB clinics so that moms are coming to us with birthing plans.”

“We need to anticipate guidance in the clinics. Do you know what questions will be asked? What strategies are available to help me cope with pain?”

Project Triggers

- Successful implementation of improved evidence-based oral care products on a single unit (surgical floor) led by 2 bedside nurses.
- Opportunity to partner with a community stakeholder to expand implementation of an evidence-based oral care protocol house-wide.

Evaluating Evidence and Practice

**Literature Synthesis**
- Hospital-acquired pneumonia accounts for 22% of all hospital-acquired infections, and is associated with increased mortality, length of stay, and costs.
- Standardized oral care is associated with a decrease in hospital-acquired pneumonia (Quinn et al, 2014; Sjogren et al., 2016).
- Improved outcomes are associated with the following products:
  - Tooth brushing for 120 seconds, two to three times daily or after meals (Kaneoka et al, 2015)
  - Debridement toothpaste, antiseptic mouth rinse, and mouth moisturizer (Kaneoka et al., 2015, Quinn et al., 2014)
  - Inclusion of patient education and resources (Quinn et al., 2014)
  - Early dysphagia screening (Sonesson et al., 2017)

**Performance Gap Assessment**
- What is your oral care plan for your patient today?
  - Ventilator oral care bundle (18%)
  - At risk oral care (3%)
  - Regular oral care PC and HS (55%)
  - None (17%)

**Practice Change**
- Expanded Oral Care Protocol
- Bundled manufacturer pre-packaged Oral Care Kits
- Oral Care Protocol built into nursing documentation workflow
- Extensive RN and PCT training

Example 3: Oral Care Protocol

An EBP Project to standardize oral care practice and align practice with evidence hospital-wide.

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Mary Kathryn Medei, BSN, RN, CMSRN, Staff Nurse, EBP Fellow
Brooke Wood, BSN, RN, CMSRN, Staff Nurse, EBP Fellow
Debra Schutte, PhD, RN
Short-term Oral Care Kits

- **Components**
  - Ergonomically appropriate toothbrush
  - Alcohol free, anti-septic mouth rinse
  - Baking soda toothpaste
  - Mouth moisturizer
  - Oral care swabs with baking soda

- **Frequency**
  - 4 times daily

Evaluation of Practice Change

- Average protocol compliance by caregivers across units: 76% (Range 36-100%)
  - *Calculated from documentation vs. product use vs. patient days

- Compared HAP events pre and post implementation of the Oral Care Protocol
  - Charts reviewed for November-May of 2014/2015 (pre-implementation) & 2015/2016 (post-implementation) for any adult patient who had an ICD 9 or 10 code for pneumonia
  - Identified HAP using CDC criteria.

Evaluation of Practice Change

- 18% of caregivers in the pre-implementation survey indicated that they had no oral care plan for their patient that day compared to 0% of caregivers in the post-implementation survey ($\chi^2 = 13.83, p=.000$).

- There was a small improvement in mean attitudes toward oral care following implementation of the Oral Care Protocol, although not statistically significant (3.73 [pre] vs. 4.10 [post], t=1.74, p=.083).

- There were no differences in perception of resources and barriers by nurse by age or years of experience in either the pre- or post- implementation responses.

- Knowledge scores increased across all 10 questions post implementation of the practice change.

- 88% of nurses post-implementation indicated they currently follow an oral care protocol compared to 56.8% of nurses completing the survey pre-implementation.

Expanding Project Impact

- System-wide implementation of the Oral Care Protocol.
- Partnering with area long-term care facilities to tailor and implement.
- Partnering with area homeless shelters to offer oral care kits and resources.
In each of these examples....

- Advances in care driven by bedside caregivers.
- Awareness of community need and impact.
- Recognition of need to reach out beyond the hospital boundaries to further improve patient experience and outcomes.
- Engaging with stakeholders (patients, families, primary care provider clinics, long term care facilities, community health agencies, health insurance company foundation) to improve patient experience and outcomes:
  - Individual
  - Community

Concluding Thoughts

- Community orientation is for everyone.
  - As much a bedside caregiver attribute as an organizational attribute
- Caregiver community orientation can make things happen.
- Community health is best served by integrated approaches to community orientation:
  - Administrative-level down
  - Bedside caregiver-level up

References


