Utilizing NDNQI® for Multi-Site Pain Care Quality Project: Successes and Lessons Learned

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OVERALL AIMS

- Evaluate the impact of disseminating and implementing pain care quality indicators using audit and feedback process
- Implement and evaluate an innovative translational research program to measure and improve pain care processes and outcomes in a sample of United Stated hospitals

PROJECT OBJECTIVES

- Identify methodological and procedural challenges in large sample data collection for translational research projects
- Describe recommended research practices that address the challenges

BACKGROUND

- Unrelieved pain contributes to increased recovery time, poor immune function and unwillingness to cooperate with treatment
- Nurses are the front-line caregivers in pain management, whose responsibilities include assessment, initiation of pain relief strategies, evaluation of pain treatment effectiveness and collaboration with an interdisciplinary team
- Currently there is no national consensus measure of nurse-sensitive pain care quality indicator

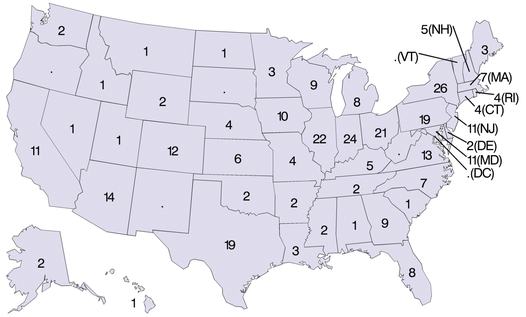
STUDY DESIGN

- Dr. Susan Beck, PhD, APRN, FAAN, pain care quality expert with University of Utah College of Nursing, partnered with NDNQI® for participant recruitment and project administration
- NDNQI® hospitals voluntarily participated in the study. Prior to participation, hospitals had to receive IRB approval
- Each facility designated a single point of contact to receive all correspondence and materials related to the study
- On a designated day, trained RNs collected patients' average rate of pain and opinions on pain management in seven types of non-critical care units.
- Patients had to be: 19 years or older, be in pain or be given pain medication in the past 24 hours, speak/understand English
- Data were entered into customized spreadsheets and submitted via email or secure file upload website
- Participating hospitals received reports containing unit level data for their facility and national comparison data. Units with the most room for improvement were randomly assigned into one of three interventions groups. Data collection on all units was repeated six months later to evaluate the improvement in pain care quality process

PARTICIPANTS

Pain Care Quality Study Hospitals

326 Hospitals in 50 States and District of Columbia



Number of Hospitals	Number of Units	Number of Patients Assessed (completed survey)	Number of Patients Ineligible	Number of Patients who Refused
326	1,711	21,149	12,585	4,747

FINDINGS

- **Project Schedule**: Feasible timelines are important for project completion. More globally, the project timeline, highlighting dates for receiving and submitting materials and data, should be distributed to coordinators at the beginning of the project
- **IRB Approval**: One of the biggest challenges was getting IRB approval from 326 hospitals. We found that hospital IRBs need at least two months to review research studies. To facilitate review, draft IRB materials were proceeded to coordinators
- **Communication Updates**: Consideration should be giving to regular communication with hospital based project coordinators. Prior to the first round of data collection, materials and protocol updates were sent by email. Although convenient and cost effective, email did not prevent some misunderstandings of the protocol. Regularly schedule teleconferences and project specific website would have provided the redundancy needed for full understanding and confirmed receipt of materials
- **Data Collection Materials**: Data were entered into customized Microsoft Excel spreadsheets. The spreadsheets contained the name and numeric ID of eligible units for each respective hospital to eliminate data collection of ineligible units. The spreadsheet contained validations to prevent erroneous and outlier date entry. Data collection spreadsheets were submitted via secure email the first round and secure file drop box the second round. The secure file drop box provided confirmation of receipt of data. It also provided a secure method for data submission for hospitals who do not have a secure email system at their facility
- **Project Evaluation**: After each data collection period, NDNQI® staff gathered feedback from hospital coordinators on the data collection experience via anonymous web-based survey. Based on the initial round of feedback, changes were made in study materials and communication protocols prior to the second round of data collection that resulted in more efficient data collection

CONCLUSION

- The coordination of a nation-wide research project amongst hospitals requires a high level of organization, a detailed timeline and redundant communication protocols. Partnership with an established nation-wide database and having a well thought out plan prior to data collection are key

IMPLICATIONS

- Using an existing nationwide network of hospitals with experience in collecting nursing data is an efficient mechanism for primary data collection for special studies

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