What Factors Affect Clinical Change? A Qualitative Analysis of Barriers and Success in a National Bronchiolitis Improvement Collaborative

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Background
In 2013, the Value in Inpatient Pediatrics Network (or VIP, part of the American Academy of Pediatrics Quality Improvement Innovations Network) launched a quality improvement (QI) collaborative with 22 hospitals to improve compliance with the 2006 AAP bronchiolitis guidelines. Members of the collaborative were able to offer unique insight into the barriers and promoters of successful quality improvement efforts.

Aim
Understand the perspectives of inpatient teams engaged in a national bronchiolitis QI collaborative, and use a qualitative approach to categorize factors that fostered or impeded improvement efforts at the hospital level.

Methods
- Research team developed open-ended interview questions through an iterative process involving literature review and clinical experience
- Trained investigator conducted telephone interviews with MDs, RNs, and RTs from purposeful sample of highest and lowest performing hospitals in QI collaborative
- Saturation of themes reached after interviewing teams from 15 different hospitals over 3 months
- Interviews audio-recorded and transcribed verbatim
- Transcripts analyzed with qualitative analysis software:
  - Collaborative structure
  - Menu of options
  - QI training
  - Culture change
  - Institutional support
  - Continuum of care
  - IT issues
  - Team structure & functionality
  - Emotional response
  - Buy-in

Results: Interview Domains and Themes

Sample Interview Questions
- In what ways did you feel like you were a part of a team at your institution?
- Was there something you would’ve been able to accomplish in the project that you didn’t?
- Could you tell me about your experience with reducing bronchodilator use?
- If you adopted a respiratory score, how was it used?
- Do you have any advice that would be helpful for other hospitals like yours who are starting QI projects like this?

Interview Excerpts
- Team structure & functionality:
  "I got to work with [other] team members, with respiratory therapists and with IT people, so building the team mentality rather than just docs working in their silo was really great."
- Buy-in:
  "There was a little more skepticism among some of the physicians about the guidelines and their dismissal of bronchodilators… I think that documenting the lack of responsiveness helped convince them."
- Culture change:
  "It was my first time doing anything like this, so I think I had unrealistic expectations of everything going smoothly, that everyone would nod and say ‘That’s what the AAP recommends so that’s what we’ll do.’ I think that was probably one of the hardest things."
- Menu of options:
  "We’ve been working with the bronchiolitis project for years, but our scoring tool was on paper… so one of the first things we did was put the form score on the [electronic] documentation, which I think was a big improvement for nursing compliance."

Conclusions
- Factors on a personal, institutional, and national level affect the success of collaborative QI projects
- Teams that met QI goals were able to parlay the AAP’s affiliation with the project and partner effectively with non-physician team members to achieve success
- Teams that did not meet as many QI goals experienced more barriers in changing culture, and discussed IT challenges to a greater extent
- Insight from qualitative interviews already been used to inform other VIP collaborative studies

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