Features of resilience in maternity services – a case study on adaptations of microsystems to influences from meso and macro system levels

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Aim

• Identify features of resilience in clinical micro systems that result from adaptation to demands from meso and macro levels
Methods

- Multi-level (macro-meso-micro) comparative case study of maternity services at two Norwegian hospitals
  - Macro: review of policy documents + participation on conferences + interviews
  - Meso: 18 interviews + 2 observations (meetings)
  - Micro: 28 interviews with members of staff, 2 focus groups and 20 hours of observations
Methods cont.

- **Hospital A**: 300 bed general hospital, small women’s clinic with one ward for obstetrics & gynecology

- **Hospital B**: 1100 bed university hospital, one of Norway’s largest women clinics with five wards in the section for obstetrics

- All interviews transcribed verbatim, uploaded in Nvivo

- Categories for analysis: structure, culture, politics, education, emotions and physical and technological environment (Bate et al, 2008)

- EU FP 7 project Quality and Safety in Europe by Research (QUASER) on organizational and cultural factors of quality and safety practices at macro, meso and micro levels of five European health systems (Robert et al, 2011)
Mikrosystem
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Mesosystem
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Makrosystem

IOM
Results

1. Structural/organisational/collective adaptation

2. Knowledge mediation

3. Learning system
Structural/organisational/collective adaption

- Adaptive hospital admission system (Hospital B):
  - Coordination centre with section coordinator to manage flow across wards

- Ward coordination and information flow (Hospital B):
  - Ward coordinating midwife not assigned to mothers in labour

- Professional response to merger (Hospital A):
  - Collective professional commitment; proud and loyal culture; will to solve upcoming internal changes and external pressure
Coordinator

- ‘The implementation of the section coordinator role has contributed to improve quality with regard to patient safety. It has also reduced the level of stress related to all incoming phone calls. […] The function has enabled us to focus on providing ordinary maternity services on the ward. No doubt it has improved quality […] The function was implemented about two years ago. Back then we experienced counterproductive conflicts between the maternity ward and the midwife-led ward. Now the section coordinator acts as buffer for these conflicts. In a way, we gossiped about each other (maternity and midwife-led ward). I think they gossip more about us than we do about them, but I don’t know. Well there was some quarreling related to distribution of patients. But now this is not an issue anymore. It’s great’ (midwife).
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Knowledge mediation

- Professional development midwives (Hospitals A +B):
  - boundary-spanning between the meso and micro level
  - mediate knowledge from middle managers into micro system language and vice versa
  - update procedures, organize courses, seminars, and simulation-based training
Educational nurse:

• ‘[...] Our professional performance is conducted according to evidence-based practices. Of course, our experience is a key in addition to the evidence-based research. It is part of my job to keep the personnel updated on routines and guidelines. I have to monitor what’s going on outside this hospital; I monitor research and make sure that our staffs have the required skills and competence, such as facilitating training for acute situations that might occur in the delivery room. [...] This course is a collaboration between the anesthesiology department and our gynecology section. We train across departments to improve our collaboration and to be prepared for handling acute situations. [...] We organise a planned training schedule, but I also train midwives individually when there is time in our ordinary schedule. [...]’ (assistant department midwife).
Learning system (Hospital A)

• No designated personnel for QI/QA after merger but developed/maintained learning from adverse events
  – Systematic review of all reported events

  – Selection of most relevant cases for learning

  – Discussion of case reports in committees and management meetings

  – Review of cases with staff at micro level to identify causalities and implement preventive measures
Influences from meso and macro

• Meso:
  – Economical
  – Flow problems
  – Quality strategy of hospital

• Macro
  – Economical
  – Patient Safety Campaign
  – Measurement on quality indicators
Conclusion – examples resilient features from QUASER study

• New organizational structures increased flexibility, coordination and use of competence.

• Changes of mindset of staff increased ability to deal with new tasks and patients

• Informal knowledge mediators support learning and adaptation

• Staff maintains and uses system to learn from adverse events
Reflections/questions

• Resilience framework: look at QUASER data with ‘new eyes’

• How can healthcare organizations ”build” capacity for resilience?
  – the role of national policy
  – the role of managers
  – the role of professionals

• How can healthcare organizations take advantage of successful resilience experiences and operations
Reflections/questions

• Is resilience a ‘motivating’ concept?
• What is the patients’, families’ role in resilience?
Next step

• Master student: back to raw data and focus groups to study features of resilience
Jeg overlevede snestormen 19. marts 2013
Thank you for your attention!

- The research is based on findings in the EU-project: *Quality and Safety in European Union hospitals: A research-based guide for implementing best practices and a framework for assessing performance* (QUASER)