

# Methodological Approaches in Resilient Health Care Studies - A Literature Review

Siv Hilde Berg & Karina Aase

«Quality and Safety in Health Care Systems»

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# The RE literature

(Righi, Saurin & Wachs 2015; Bergstrøm, Winsen & Henriqson 2015)

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- Rationale behind resilience studies is complexity
- Object of resilience: Capacity to adapt to emerging risks
- Subject of resilience: Sharp end staff and managers
- Health care accounts for 19% of the resilience literature
- Mainly case study approaches
- Challenge:
  - ✓ Where to put the limits around the system, what methods to use, what data to include?

How is the challenge met in RHC studies?

# Review questions

1. What methodological approaches are applied in resilient health care studies?
2. What are the main topics and data sources in resilient health care studies?
3. How are case boundaries or system boundaries (macro-meso-micro) reflected in resilient health care studies?



# Review design

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## Inclusion/exclusion criteria

- Empirical studies
- Published in journal/book
- Health care settings
- Psychological resilience excluded
- No set time period

## Search strategy

- Databases: MEDLINE, Academic Search Premier, CINAHL, SocINDEX
- Journals: *Reliability Engineering & System Safety, Safety Science, Cognition, Technology & Work*
- RE and RHC books
- Search terms: «resilience», «resilient», «resilience engineering», «health», «health care»
- Search conducted March 2015

# Demographics

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- 26 empirical studies of resilience in healthcare settings published between 2006 and 2015:
  - 17 studies from resilience books
  - 7 studies in *Cognition, Technology & Work*
  - 2 studies in *Reliability Engineering & System Safety*
- Countries:
  - US, UK, Canada, Sweden, Australia, Japan, Israel, Norway, Switzerland, Taiwan
- Empirical setting:
  - 14 studies in EC/ED, ICU, acute care
  - 2 studies in surgery
  - 2 studies in pharmacies
  - 8 studies in others (mental health, robotic surgery, palliative home care, elderly care, cancer care, obstetrics, diabetes care)

# Methodological approaches

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- The majority of studies apply a case study design with multiple qualitative methods:
  - Observation ( N = 17)
  - qualitative interviews (N= 11)
- Other data collection methods:
  - Focus groups (N=4), workshops (N=4), conversation analysis (N=4), process walks/tracing/mapping (N= 4), surveys (N=3), work analysis (N =2), critical incident narratives (N=2), documents/design/ indicators (N=1), FRAM (N=1), simulation techniques (N=1), network analysis (N=1)
- Few studies apply quantitative or mixed methods

# Main topics, data sources

	Topics
Micro n=3	Perspective on error, strategies for cross checking, practitioners rules and expertise
Meso n=23	Organizational resilience, practice/care functioning, system functioning, safe/unsafe care, system adaptations, complexity, CAS, continuity or care.

Data sources	
Micro n=21	Health care professionals' adaptations, performance, actions, strategies, responses, communication, coping with demands, perspectives, understanding or attitudes, patient/ next-of-kin experiences (n=1).
Meso n=13	Management, work demands, system design, organizational performance strategies, documents, organizational output, context descriptions.
Macro n=2	National system reform, external demands.





# Case and system boundaries

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Level	N
Macro, meso, micro	2
Meso	2
Meso, micro	9
Micro	12

- Data collected at micro level within single empirical settings.
- Case boundaries limited to sharp end.
- Few studies with a multi-level approach including e.g. organizational data, national health care strategies.

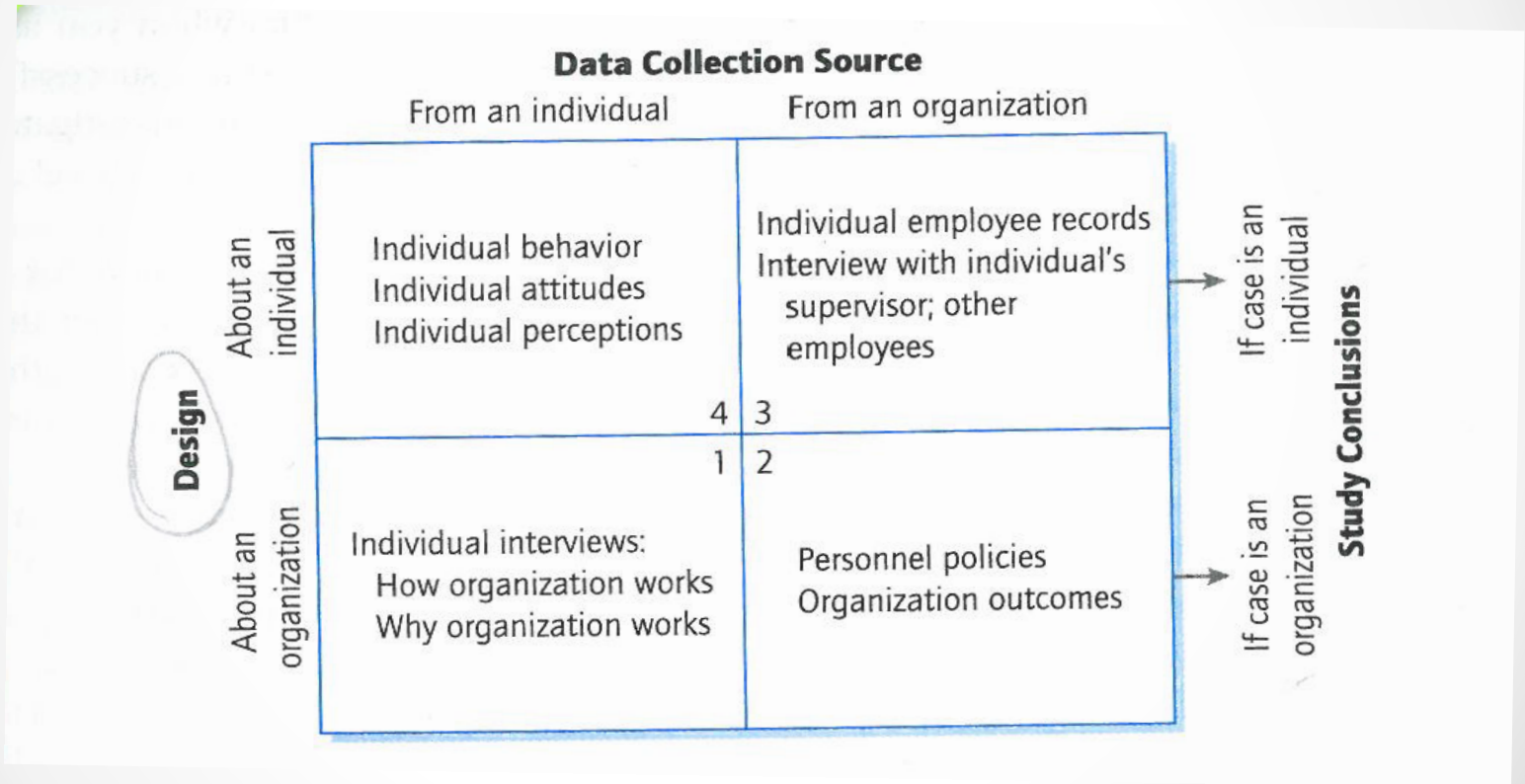
# Discussion

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- Study aim (organisational phenomena) VS data source (clinical behaviour)
- Macro/meso level context largely missing
- Resilient practices rather than resilient system abilities?
- Patient perspective is missing – why?

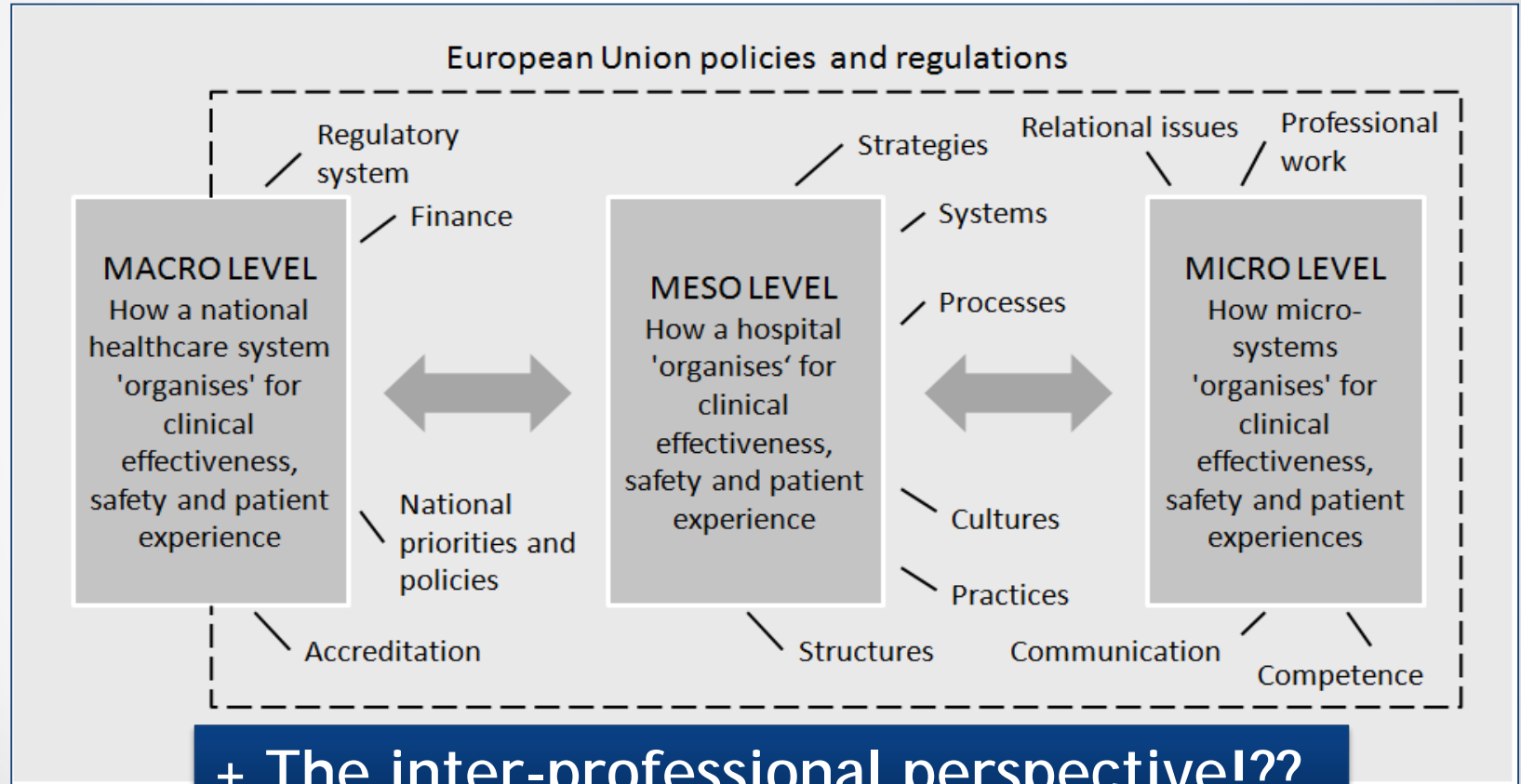


# The «individual - organisation» crux



(Yin 2014, p.92)

# Holism vs individualism - irreconcilable?



# Thank you!

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From Anna Sofia and her  
BFF Pepsi 😊



University of  
Stavanger