



Transforming doctors' health – Engaging with complexity theory and cultural change.

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Faculty/Presenter Disclosure

Presenter: **Margaret Kay**

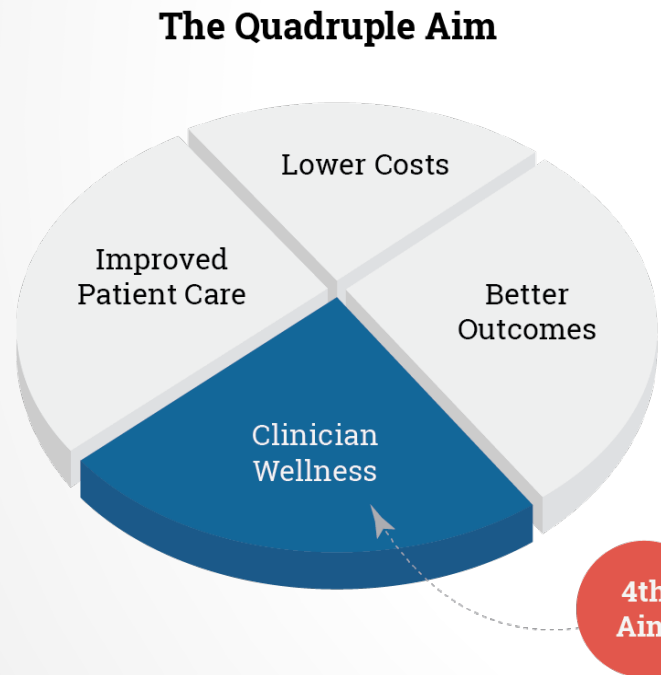
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Physician Health – a key to quality care

o Optimising health system performance

- Patient experience
- Quality of care
- Reduced cost of health care

} Berwick' Triple Aim



← Bodenheimer and Sinsky, 2014

Complexity Science

- Non-linear Systems
- Major change – minimal response
- Small changes – Major response
 - Butterfly effect
 - Bifurcation

Complexity Theory

- 7 Characteristics

1. Complex Adaptive System (model)
2. Far from equilibrium
3. Dynamic
4. Emergence
5. History
6. Landscape
7. Language

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Complex Adaptive System-

14 Elements

1. Multiple components
2. Components are connected
3. Local interactions
4. Non-linear interactions
5. Feedback enables responsiveness
6. Iterative
7. Sensitive to initial conditions
8. Responsive to external environment
9. Self-organisation
10. “Fuzzy” boundaries
11. Overlap between systems
12. Difficult to remove components
13. Components may not understand the emergence
14. No single component controls the system

Doctors' Health Access - CAS

1. Components
 - identified
2. Connectivity

Doctors' Health Access - CAS

3. Local interactions

create change

4. Non-linear interactions

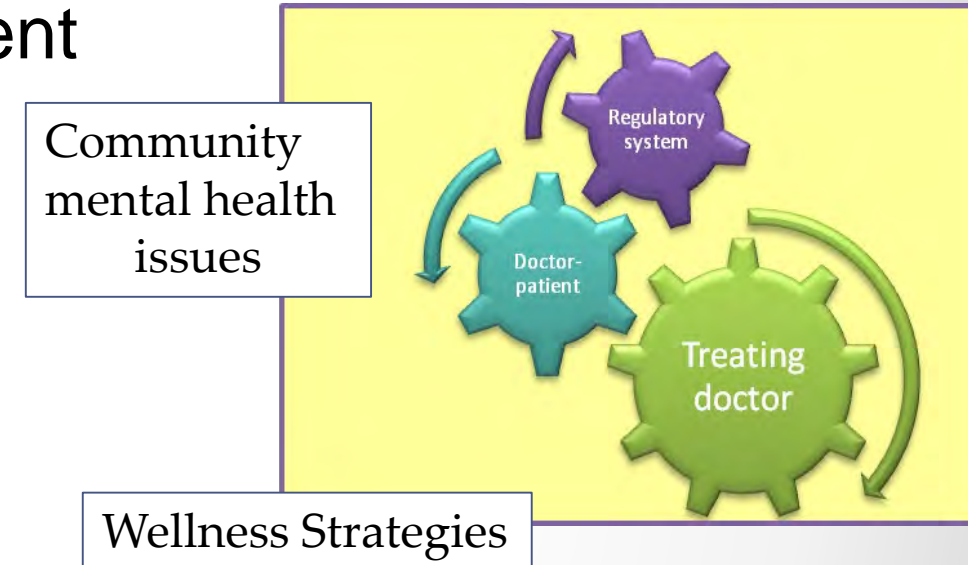
Small changes
may cause
big effects

Doctors' Health Access - CAS

5. Feedback enables responsiveness
with each interaction
6. Feedback is iterative
and continuous
7. Sensitive to initial conditions
what happened before can change the response

Doctors' Health Access - CAS

8. Responsive to external environment



9. Self-organisation

patterned normative behaviours

Doctors' Health Access - CAS

10. “Fuzzy” boundaries
11. Overlap between systems
12. Difficult to remove components
13. Components may not understand the emergence
14. No single component controls the system
 - no **one** person or organisation
 - leadership cannot be top down

In Conclusion

Complexity Theory helps us

- Understanding patterns
- Understanding how systems work
- Help us identify unintended consequence/s sooner



Thank
YOU

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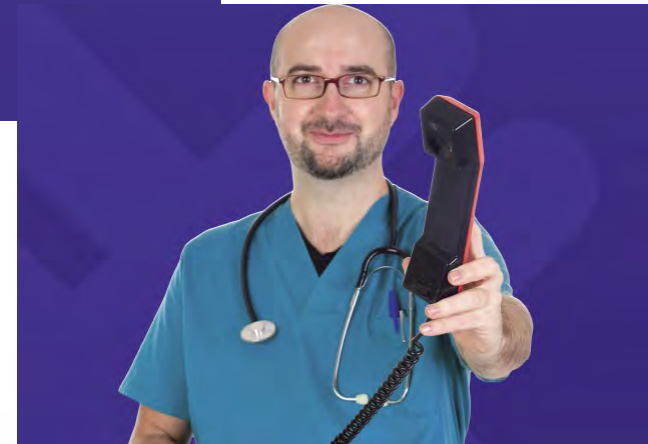
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