

Healthcare service planning and simulation modelling: A case-study implementation evaluation

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Oral and poster abstract text

Background

Simulation modelling is an increasingly popular tool in healthcare management as it allows decision makers a risk-free environment to explore new policy and treatment innovations. However, the implementation of simulation modelling as a decision support tool in healthcare service planning is rarely reported.

Objectives

To provide an empirical evaluation of the implementation of a simulation model intervention to aid healthcare service planning in a large Australian Mental Health Service (MHS).

Method

A collaboration between researchers and MHS senior managers developed a series of simulation models, calibrated against patient data. The evaluation took a qualitative, longitudinal case study approach, informed by Pragmatism, complexity theory and the critical incident technique. Evaluation data included interviews with managers and researchers, observational notes and project documentation.

Results

Three simulation models were developed during the 3-year intervention. Project progress was affected by changes in the government funding and policy, organizational and research contexts. It was only when all three contexts aligned that observable change occurred and even then, it occurred in emergent and unexpected ways. What was envisioned at the project start was a series of simulation models to inform discrete organisational decisions. What was created was an embedded research unit, with modelling capacity, which is still called upon by healthcare managers to inform their thinking and decisions as needed.

Conclusions

Simulation modelling is a promising tool for healthcare service planning. However, changes to the implementation context are inevitable and unpredictable, requiring great flexibility from researchers to respond to the changing needs of healthcare managers.