Trade-offs in connecting people to FRAM

Al Ross PhD C.Erg.HF C.Psychol
What is the good ship FRAM?
Missionary work

MISSIONARY WORK
IS THE LIFEBLOOD OF
the Church.

THERE IS NO GREATER WORK,
NO MORE IMPORTANT WORK.

Sister Silvia H. Allred
Beyond pot noodles... the abstraction-utility trade-off

- Simple system/ hard translation
  - Going to cinema
  - Getting cash at ATM
  - Made cup of tea
  - Going to work in am

- OR
- Hard system/ direct application
  - Results handling

Hard to know at this stage how useful the FRAM will be going forward

Interesting but unclear transferability....
Beyond human error...the systems theory trade-off

- Explains ‘why FRAM’?
- Important for project aims and dissemination
- People expect technique training
- Theory takes time
- Can be too simplistic

Classic medical sociology

- hardly anyone knows all the extant rules, much less exactly which situations they apply to for whom and with what sanctions
- [...] the area of action covered directly by clearly enunciated rules is really very small

Strauss A et al. (1963)
Flavours of FRAM

- Complexity, equivalence, emergence
- Variability and resonance
- Trade offs and adjustments
- How things go...
Showing complexity: the granular/linear trade-off

- The broader the FRAM functions, the more linear the model can appear
- The complexity is in the granularity
- But this can eventually appear trivial
It is important to have the right model
Getting FRAM ‘wrong’...the expertise trade-off

- E.g. THAT IS NOT A PRECONDITION!!
- People in the system are confused about the model, not the system
Showing impact: the time and motion trade-off

• Need FRAM projects showing impact
• Can seem luxurious

I liked the idea of this method however thought it might be quite time-consuming to actually apply to smaller scale improvement projects.

I see the benefit over simpler process maps but ... not sure if I would be able to apply this to the projects I support.
How do we begin to intervene?

Pre-clinical
- Explore relevant theory to ensure best choice of intervention and hypothesis and to project major confounders and strategic design issues.

Phase I
- Identify the components of the intervention and the underlying mechanisms by which they will influence outcomes to provide evidence that you can predict how they relate to and interact with each other.

Phase II
- Describe the constant and variable components of a replicable intervention and a feasible protocol for comparing the intervention to an appropriate alternative.

Phase III
- Compare a fully-defined intervention to an appropriate alternative using a protocol that is theoretically-defensible reproducible and adequately controlled in a study with appropriate statistical power.

Phase IV
- Determine whether others can reliably replicate your intervention and results in uncontrolled settings over the long term.

Definitive RCT

Modelling

Long-term Implementation

Exploratory trial
A Systems Analysis of Fluoride Varnish Application in General Dental Practice in Scotland Using the Functional Resonance Analysis Method


• Issue: fluoride varnish application in practice is variable

• Simple question: why?
  • Draw from multiple data sources

• In 15/16 just 18% of 2-5 yr olds received the recommended twice yearly application in practice
A Systems Analysis of Fluoride Varnish Application in General Dental Practice in Scotland Using the Functional Resonance Analysis Method

- Issue: fluoride varnish application in practice is variable

- Simple question: why?
  - Draw from multiple data sources

- In 15/16 just 18% of 2-5 yr olds received the recommended twice yearly application in practice

Childsmile evaluation monitoring data

GDP surveys (n= 1,090; n= 709)

Workshop (n= 56)

Interviews (n=43)
So, the MRC wants complex!
Did you need FRAM?
A Systems Analysis of Fluoride Varnish Application in General Dental Practice in Scotland
Using the Functional Resonance Analysis Method

Projected instantiation of the system showing improved functioning to increase varnish application
QI intervention: co-designed toolkit

- 95th percentile for FV applications
- Tell us how to carry out the identified activities
Now to intervene..

Co-design activity toolkit
With GDPs who apply high rates of FV

Feasibility test (late summer)
Test delivery and acceptability; Clinical audit approval sought

RCT (Jan 2019?)
Randomised to practice; Outcome is FV application rate
1. The content was relevant to my role

- Strongly agree: 7.0%
- Agree: 29.8%
- Neither agree nor disagree: 5.3%
- Disagree: 1.8%
The good
The work continues..

- The session was great as an introduction but before I could use it in practice I would need more in-depth training.
- I think it belongs to the family of improvement tools around process and system mapping and could perhaps be presented as part of a session on that.
- Interested to learn about FRAM, not sure if I will use it, is very open ended and broad. Always good to learn about different techniques though.
This is a closing slide

- alastair.ross@gla.ac.uk