



“In older people with suspected heart failure, does adding a focused ultrasound scan to the community pathway improve healthcare quality?”

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Health Research Fellowship
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Research plan and progress

Core elements

- Consider context
- Develop, refine, and (re)test programme theory
- Engage stakeholders
- Identify key uncertainties
- Refine intervention
- Economic considerations

MRC framework for complex intervention trials

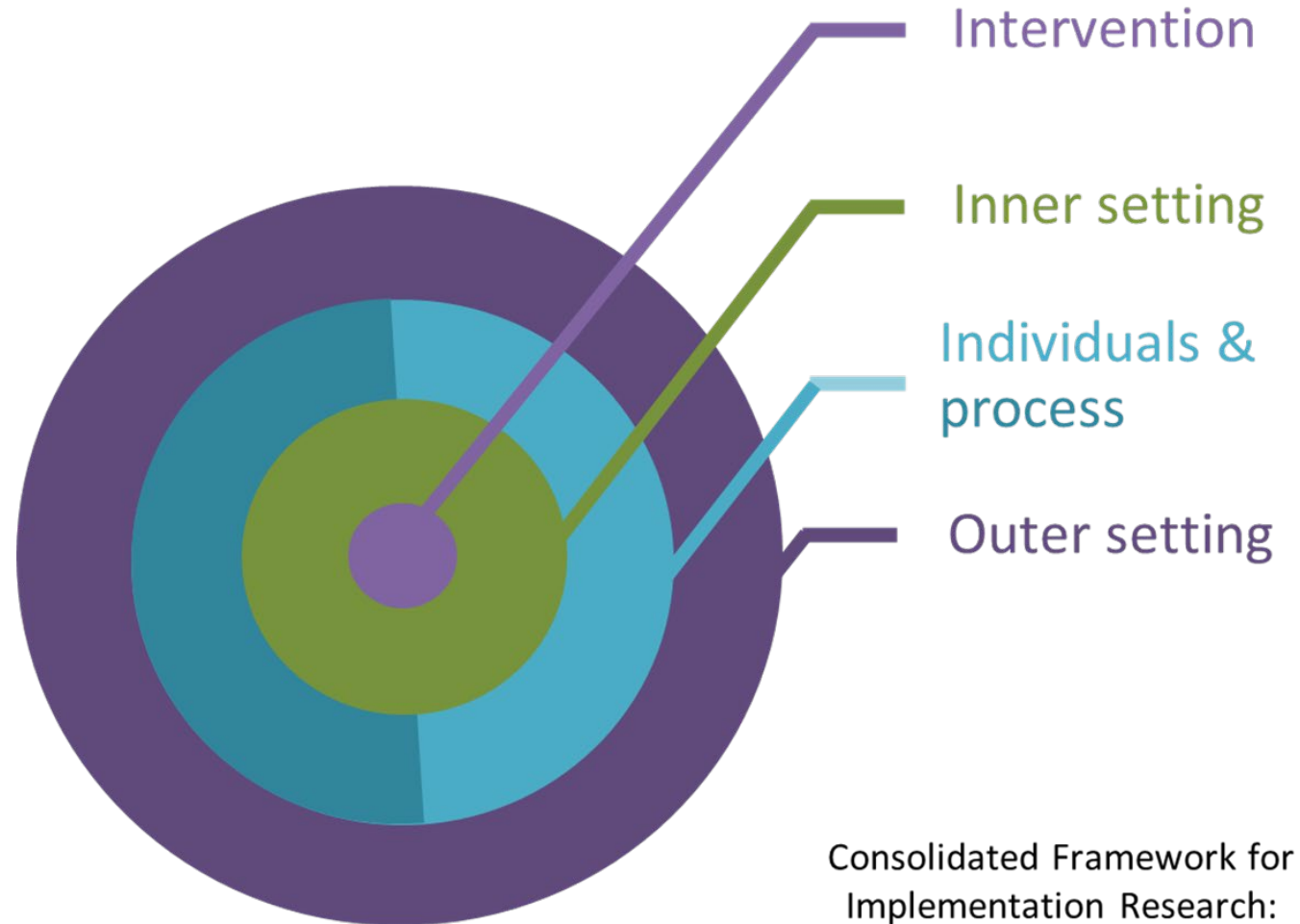
Learning new methods!

Quant data collection

- Case report forms (n=32)
- PROMs

Quant analysis

- Data cleaning
- Descriptive statistics
- Frequencies, accuracy, Kappa



Consolidated Framework for
Implementation Research:
cfirguide.org

CFIR domains	Quantitative result	Qualitative result	Meta-inference
Intervention	N=32 (81±9y) 100% acceptance, 94% feasibility 50% scanned in chair Scan + 15mins to visit PROMIS2 65% complete	“relatives liked that it could be done at home” “patients all thought good idea” “more challenging in house setting” “not all questions relevant – many aren’t active”	<ul style="list-style-type: none"> • Scan protocol is feasible and acceptable • Adjust training to include scanning challenges • PROMIS2 unsuitable for cohort
Inner setting	4 nurses Recruitment ~2.5 months 43% recruitment by 1 nurse 30% of all referrals eligible	“need a machine each” “Dr X supportive and could see clinical use” “Team positive” “remote expert would be helpful” “management can be short-sighted” “they don’t understand hospital-at-home service”	<ul style="list-style-type: none"> • Review machine availability and recruitment window • Consider infrastructure for remote expertise • Management believed to be a barrier - engage
Process	38% medication change 53% formal echo referral (6% inappropriate)	“improves decision making” “added to the working diagnosis, consolidated your thoughts” “a more reliable diagnosis” “start treatments with confidence”	<ul style="list-style-type: none"> • Diagnostic confidence impacts management decision • Current pathway appears less effective in this population
Individuals	Prevalence LVSD 44% Agreement 0.81 (Kappa) Sensitivity 0.94 Specificity 0.88	“struggled with subcostal view” “could not get all views – is it me?” “sometimes difficult to determine if B-lines” “LUS ok and useful” “Confident with POCUS views”	<ul style="list-style-type: none"> • Variation in individual nurse confidence • Belief about skill ≠ accuracy results. • Review power calculation

Progress: Personal development

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Mixed Methods in Health Research



Reflections

