

Understanding the Barriers and Facilitators to Introduction of Diagnostic Ultrasound

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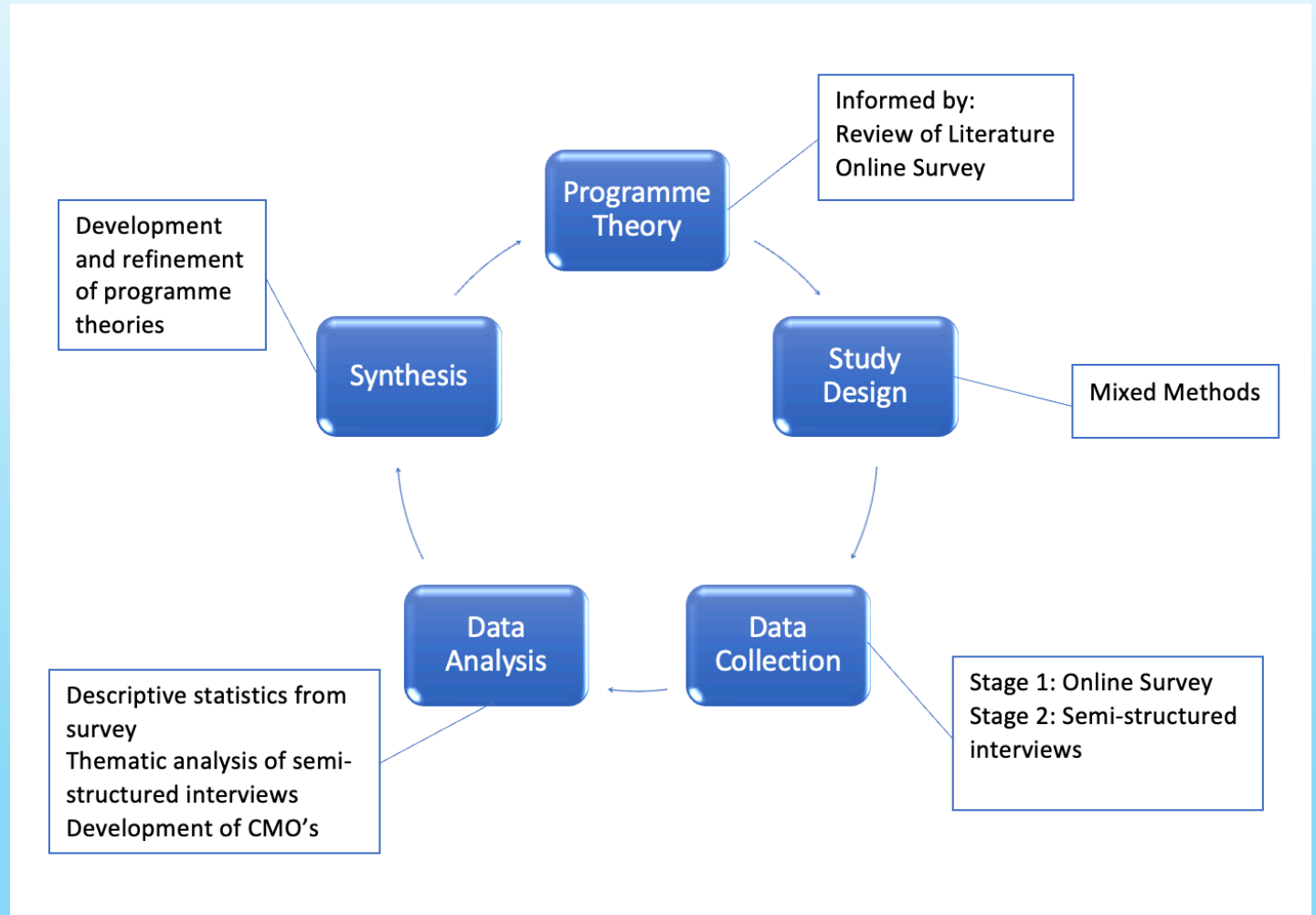
Orthopaedic Advanced Practice Podiatrist

NHS Ayrshire and Arran



Study Design

- Mixed methods realist evaluation
- Stage 1: Survey
- Stage 2: semi structured interviews



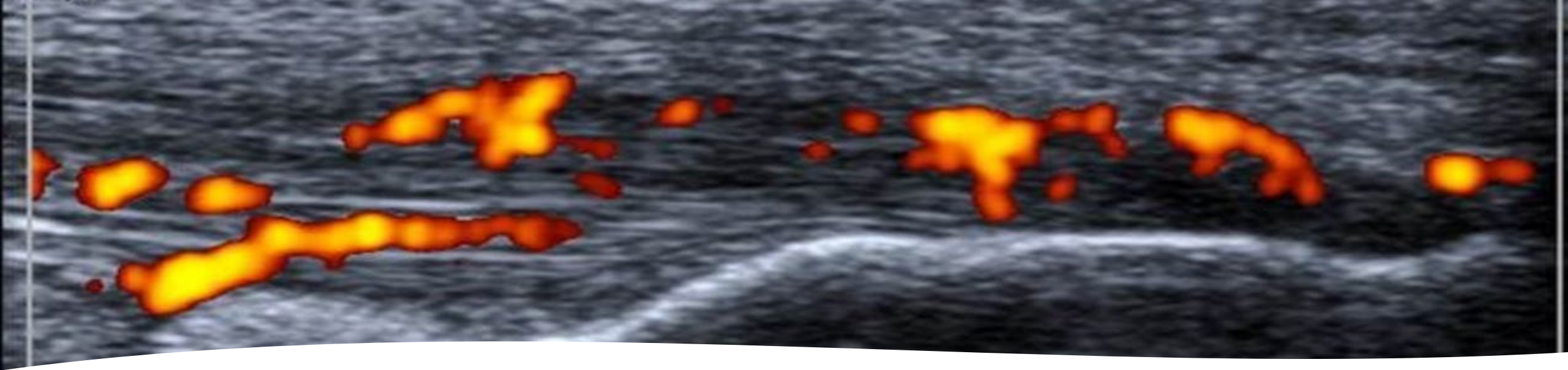
Realist Evaluation

Pawson and Tilley (1997)

Asserts that the material and social world are real and have real effects

Seeks to understand the generative mechanism that produce change

“What works, for whom and under what conditions”



Research Methodology: Realist Evaluation

- Multifaceted complex healthcare systems (Ozawa et al, 2014)
- Mixed methods research less prominent in healthcare
- Utilising the richness of mixed methodologies and minimising the limitations (Hickman, 2015)

Retroduction

Positivism

Theory Testing
Experimental
Designs



Constructivism

Theory building
Narrative analysis
Interpretation of
perspectives



Context

Fundamental to understanding a program

Provides depth of understanding



Mechanism

Causation

Not always observable



Outcome

Insufficient insight alone

Survey Summary

- 228 respondents
- 134 female, 91 male, 3 not reporting gender
- 183 NHS, 36 private practice
- 138 from Scotland, 70 from England difference from Wales and NI

Clinical Area of Practice	Number of Respondents (%)
High Risk/Wounds	54 (24%)
Rheumatology	12 (5%)
Orthopaedics	18 (8%)
MSK	73 (32%)
Podiatric Surgery	7 (3%)
Paediatrics	2 (1%)
Vascular	1 (<1%)
Research	2 (1%)
General Practice	52 (23%)
Other	7 (3%)

Reported and Perceived Facilitators

	Total	
	Qualified	Not Qualified
Strong Leadership	24 (51%)	112 (62%)
Supportive Culture	20 (43%)	108 (60%)
Established Service	8 (17%)	63 (35%)
Access to Literature	8 (17%)	32 (18%)
Willingness to Learn	31 (66%)	99 (55%)
Availability of Funding	21 (32%)	102 (56%)
Other	9 (19%)	10 (6%)

Reported and Perceived Barriers

	Total	
	Qualified	Not Qualified
Existing Governance	13 (28%)	50 (28%)
Inhibiting Clinical Environment	6 (13%)	45 (25%)
Mentorship	27 (57%)	91 (50%)
Lack of Knowledge	10 (21%)	5 (3%)
Demands on Time	27 (57%)	79 (44%)
Unsupportive Culture	9 (18%)	29 (16%)
Lack of Clarity over Job Role	8 (7%)	45 (25%)
Funding	15 (32%)	99 (55%)
Other	5 (11%)	-

Emerging Themes

Ultrasound
offered no benefit
to practice

Time and cost
prohibitive

Lack of funding

The role of
radiology service

Not relevant to
current role

Lack of
knowledge in
ultrasound

Organisational
leadership and
culture

Lack of value of
ultrasound

CONTEXTS		
Learning culture supported	Organisational Resource	Strong Leadership/Support
Shared leadership/equal voice	Interdisciplinary Relationships	Service priorities
MECHANISMS		
Shared vision in service direction	Internal Motivation	Professional responsibility
Clarity of role	Compassionate Leadership	Availability of funding/training budget
Dedicated learning time	Existing services support implementation	Collaborative working/building relationships
Local and National Strategy		
OUTCOMES		
Improved communications	Supportive Culture	Enhanced team working
Staff satisfaction	Patient satisfaction/improved clinical outcomes	

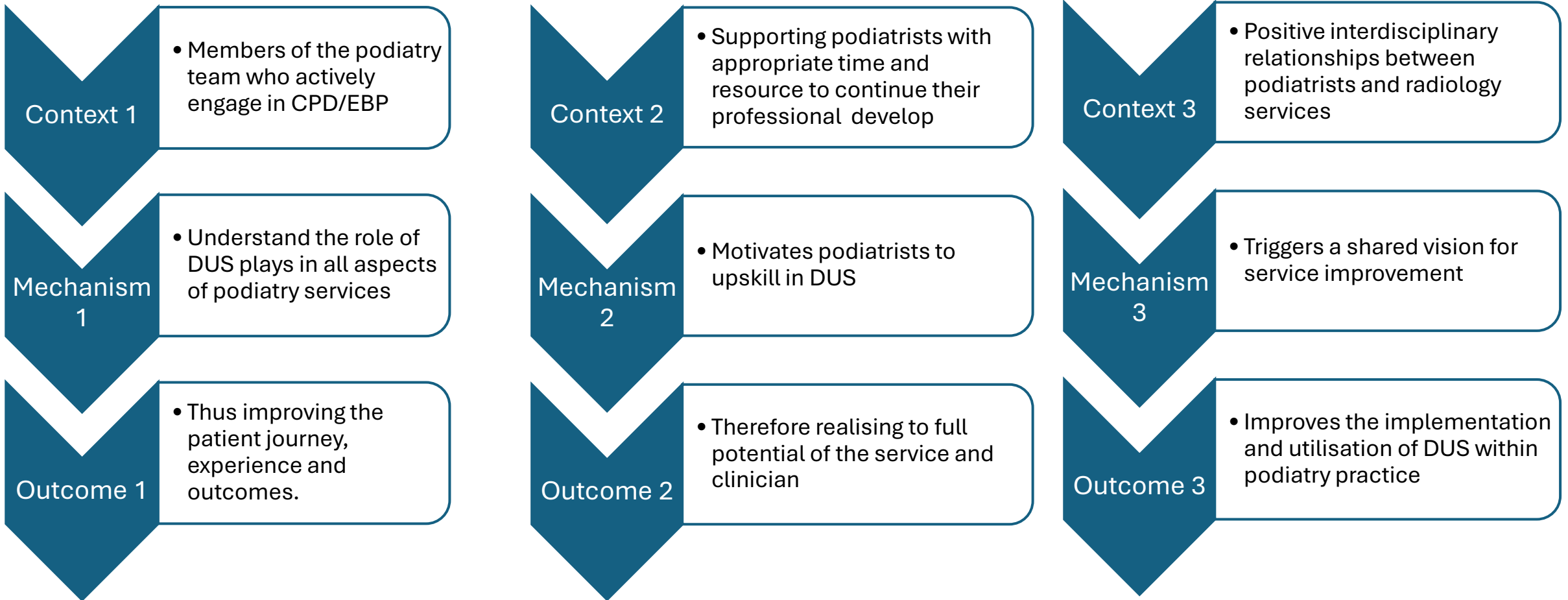
Semi-Structured Interviews

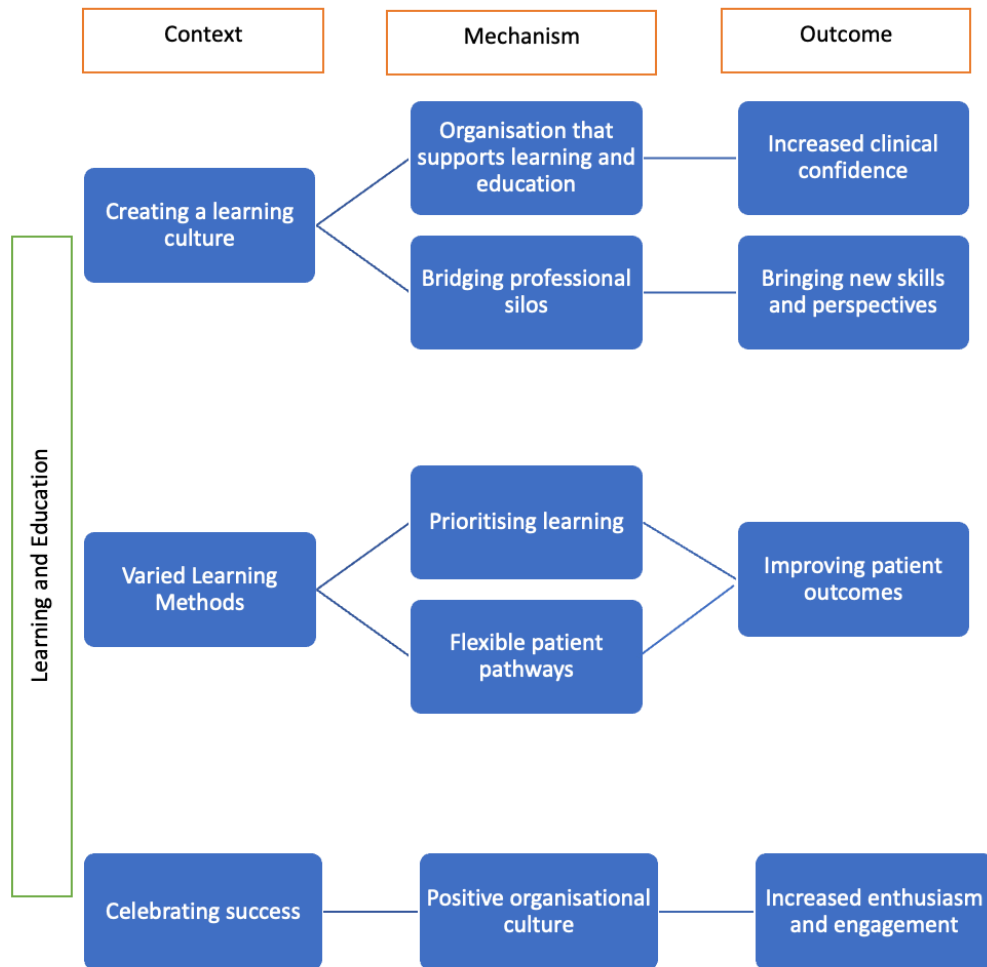
Purposive sampling (Campbell et al, 2020)

NHS Scotland employees who also fit one of the following criteria:

- Clinician utilising diagnostic ultrasound
- Clinician/service leader who has successfully introduced or attempted to introduce diagnostic ultrasound into practice
- Service leader responsible for introduction of diagnostic ultrasound

Conjectured CMO

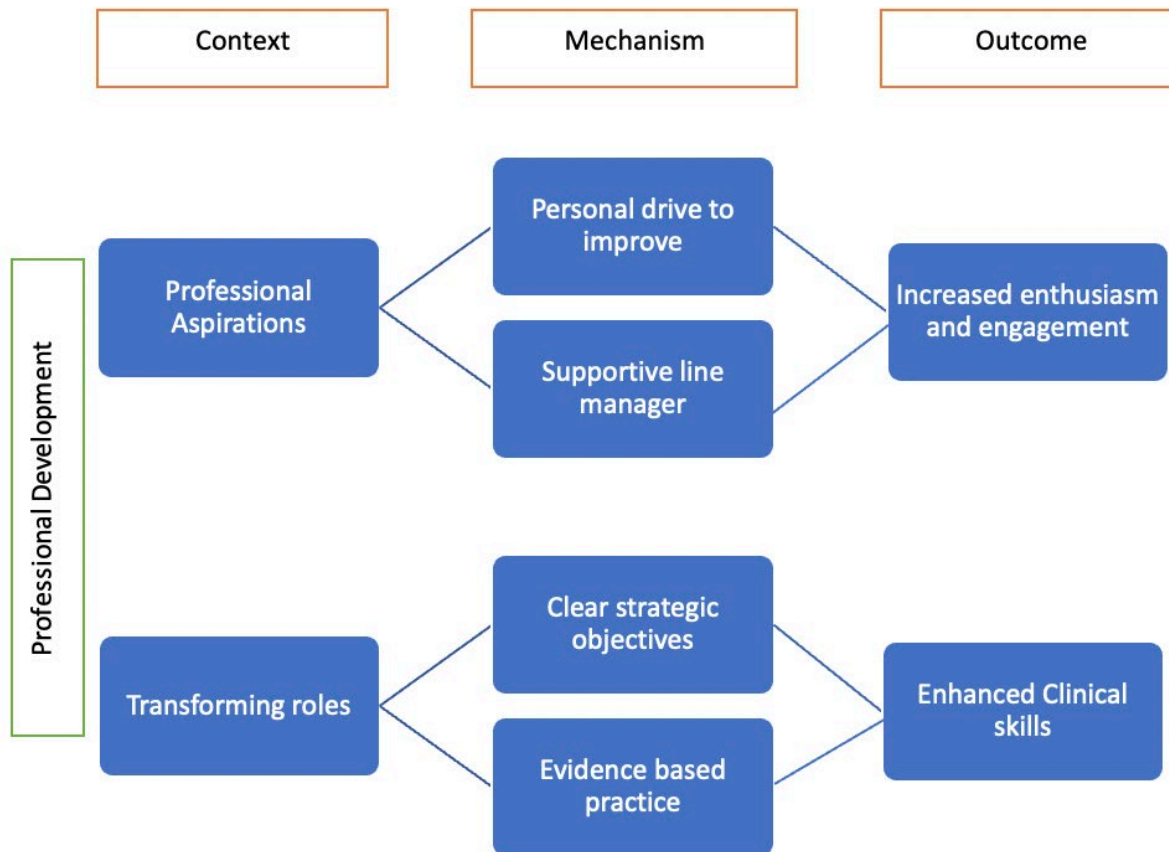




“I’m not convinced that we give the wider podiatry team any benefit really, I mean occasionally we might scan them as a favour but that was it, that’s the way the service is

“I suppose there’s a gap that could be used in the vascular side of it. I guess there is that kind of space there that we could utilise to take some of the strain off our colleagues in vascular, I guess.”

“I think we’re missing a trick not looking at”

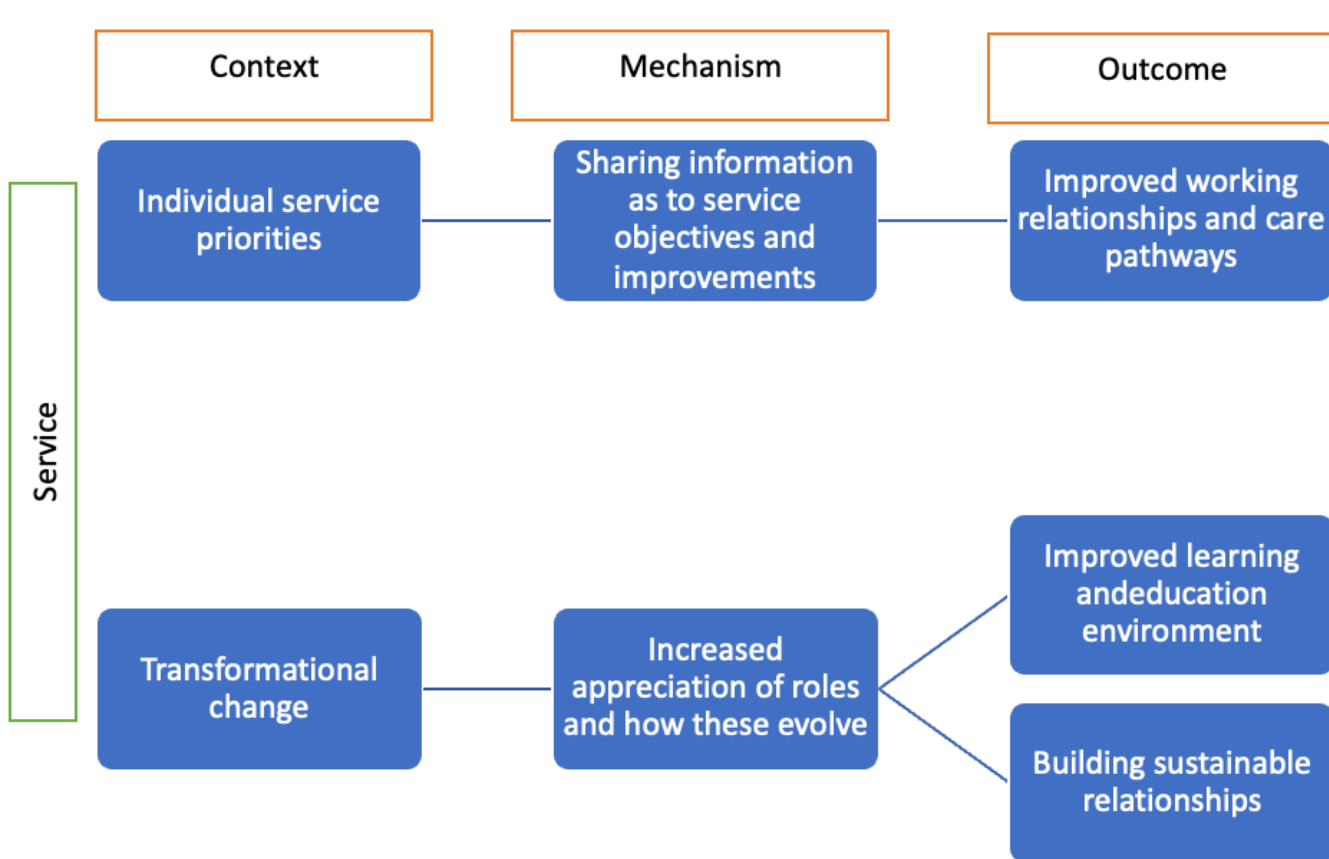


“You’ve got to have capacity within your service to be able to absorb that if you’re releasing clinicians to do scanning rather than seeing patients”

“At the time, our leadership model was, unless the head of service was keen, it wouldn’t happen and they weren’t keen.”

“personally I find it more stimulating to do diagnostic ultrasound clinics”

“I had to go through an internal process of scrutiny that was set up by the AHP associate director to ensure that any bids that went forward were aligned to political and strategic drivers within AHP services at that time”



“Personally I think there was a bit of guarding of the profession, they were worried that they were losing a bit of the profession and the boundaries were starting to become a bit blurred, and I think they were worried about quality as well which is something that we had to kind of prove“

“As podiatrists we didn’t have a relationship with radiology prior to that, so we have to establish a relationship with the radiologist”

“To be honest I’m not entirely sure that they’re [radiology] completely on board yet but we’re getting there”



Thank You

References

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