Barriers and facilitators of implementing complex interventions in primary care

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Background

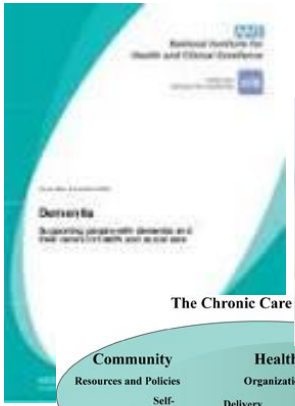
- Two translational gaps have been identified *(Cooksey report, 2006)* :

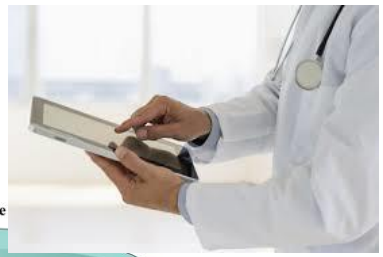
  - *1st translational gap*

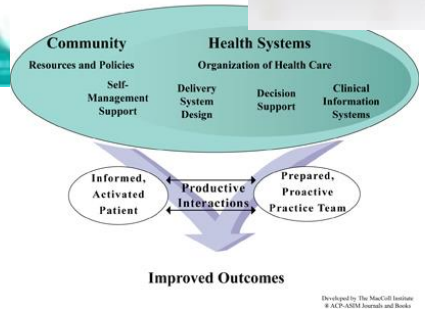
  Basic laboratory research → diagnostic procedures / treatment of illnesses / diseases

  - *2nd translational gap*

  Development / implementation of new interventions / processes → every day clinical practice







What is the problem?

- Takes ~17 years to turn 14% of original research findings into changes in care that benefited patients *(Balas et al, 2000).*

- At least 30-40% of patients do not receive care according to current scientific evidence; 20% or more of the care provided is not needed or potentially harmful to patients *(Grol, 2003).*

Why does this matter?

- Patients receive sub-optimal care
- Health care costs are rising due to:
  - Ageing population;  in long term conditions
  - Medical advances; Rising consumer expectations
- Budget not rising, so
- Every health care £ must be “well spent”
  - Effective, cost-effective, avoid opportunity cost

Why focus on primary care?

- Enormous structural re-organisations
- 2/3 of NHS England budget controlled by CCGs
- 90% of health care episodes dealt with in primary care
- Primary care / general practice

has a unique culture /

relation with research

Aim

To identify, summarise and synthesise the available literature on the second translational gap

Methods: Systematic review of reviews

Systematic methods of:

- Searching – to identify all relevant papers
- Explicit criteria for inclusion / exclusion
- Data extraction
- Data synthesis

Enables identification, description and synthesis of large literature (relatively) quickly.

Inclusion criteria and Definitions.

Reviews of causes of or methods of closing the 2nd translational gap for complex interventions in primary care

Review: a summary of studies addressing a clearly formulated question that uses explicit methods to identify, select & analyse data from included studies.

Definitions (cont)

Implementation: involves all activities that occur between making an adoption commitment and the time that an innovation either becomes part of routine practice, ceases to be new, or is abandoned.

Complex intervention: multiple interacting components; may act independently or interdependently. (MRC)

Primary care: "… the first level contact with people taking action to improve health in a community." (RCGP)

Methods

Identification:

Comprehensive search of 5 databases

(*Medline, Embase, Cochrane Lib, CINAHL, PsycINFO*)

Study Selection:

Double screening of abstracts and full papers

Data extraction:

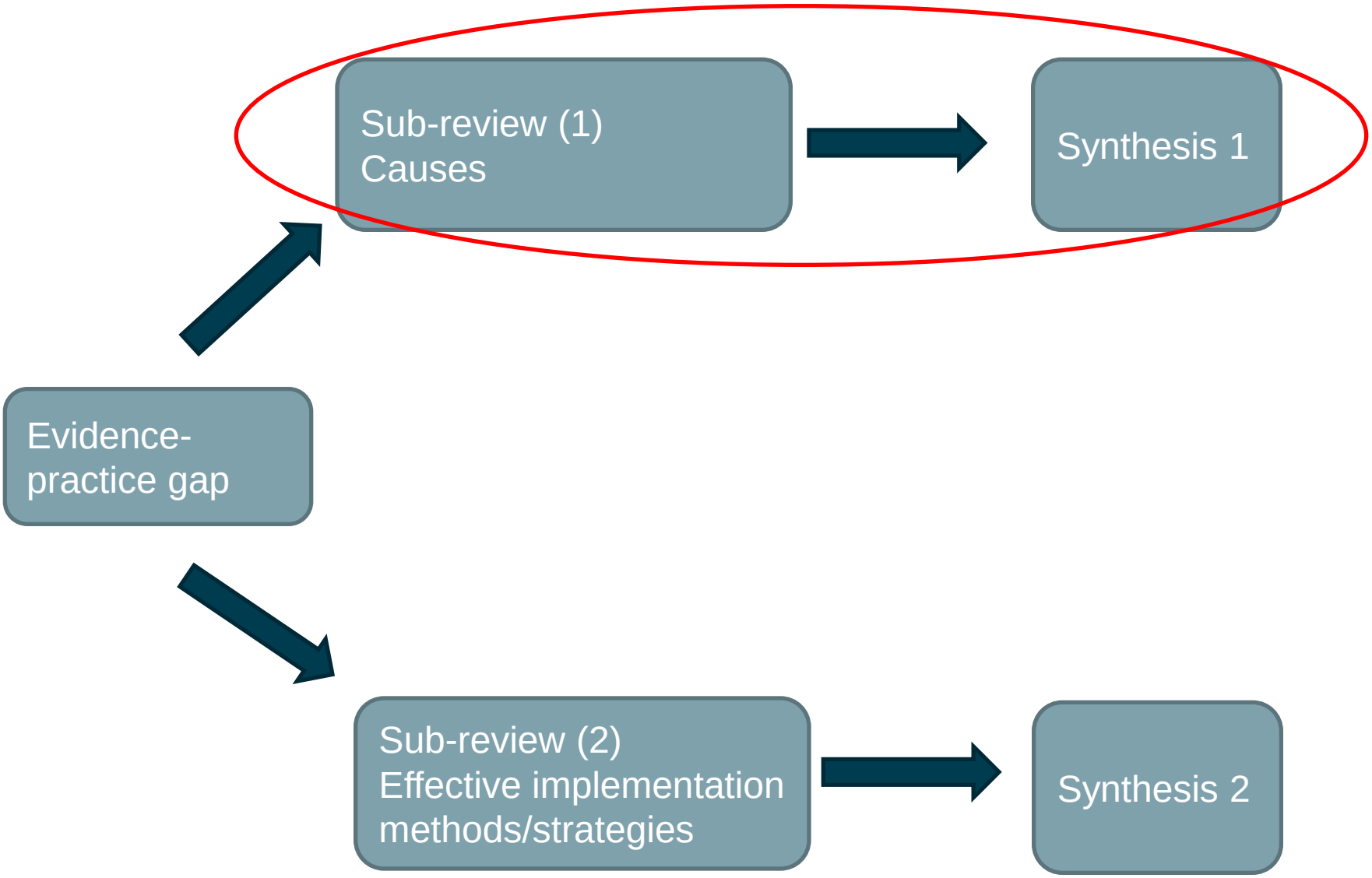
Standardised data extraction forms;

25% of data from included reviews double checked

Data synthesis:

Review 1: Causes = meta-synthesis / qualitative

Review 2: Methods of closing = quantitative


Sub-review (1)
Causes
Synthesis 1
Evidence-
practice gap
Sub-review (2)
Effective implementation
methods/strategies
Synthesis 2

Meta-synthesis

- "It is not an integrated or narrative review, nor a secondary analysis of the primary raw data; rather it is the reviewers' interpretation of the findings, which may include themes, categories and relationships, arising from the data of the original findings, to produce new interpretations that incorporate the meanings of the included studies" *(Jensen & Allen, 2006)*.

- Also known as meta-study, meta-ethnography, qualitative meta-analysis, aggregated analysis.

Meta-synthesis – how?

Step 1: framing a research question

Step 2: locating relevant papers

Step 3: deciding what to include

Step 4: appraisal of studies

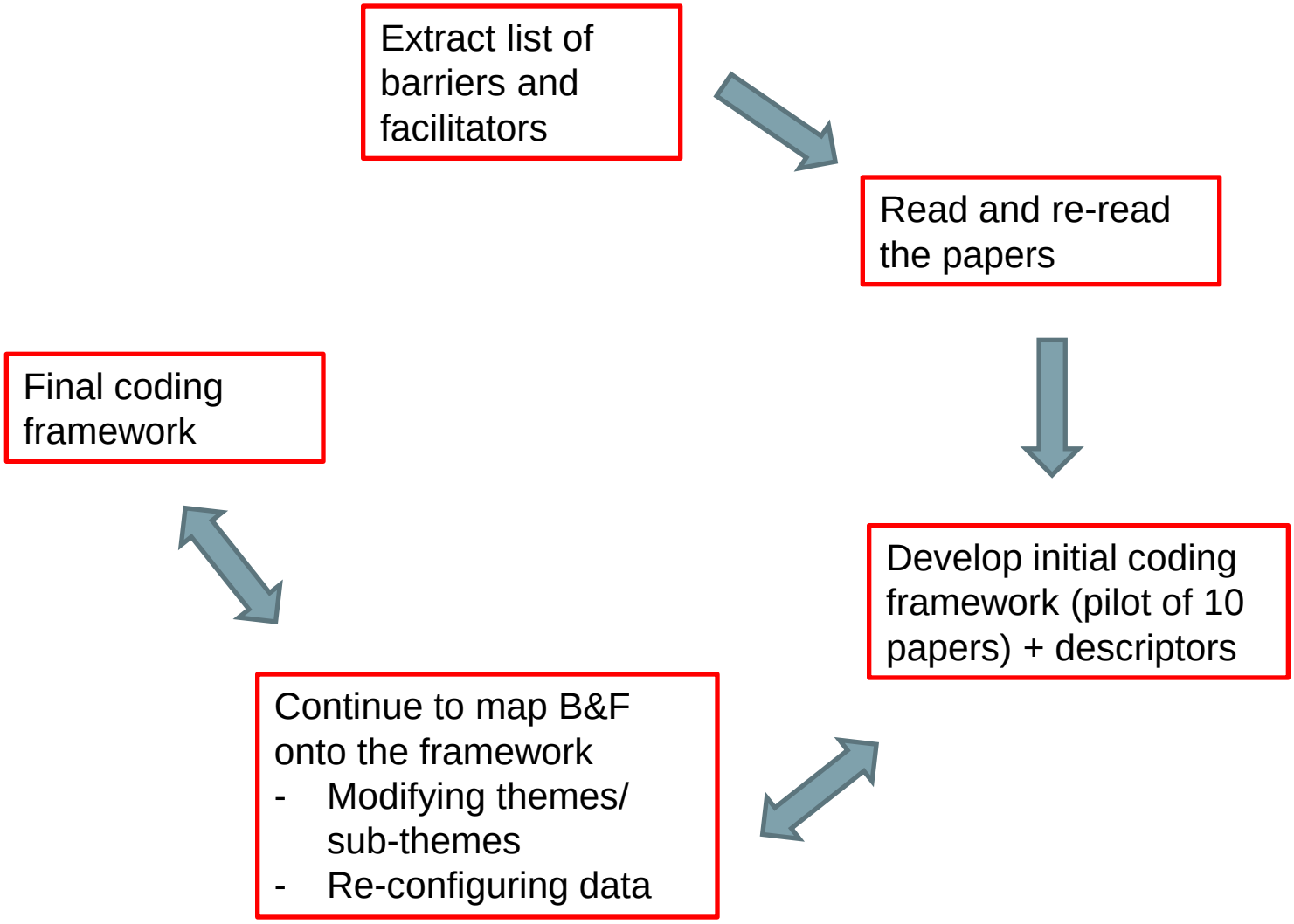
Step 5: analytic technique

- 5a: determine how the studies are related – common and recurring concepts
- 5b: translate the studies into one another

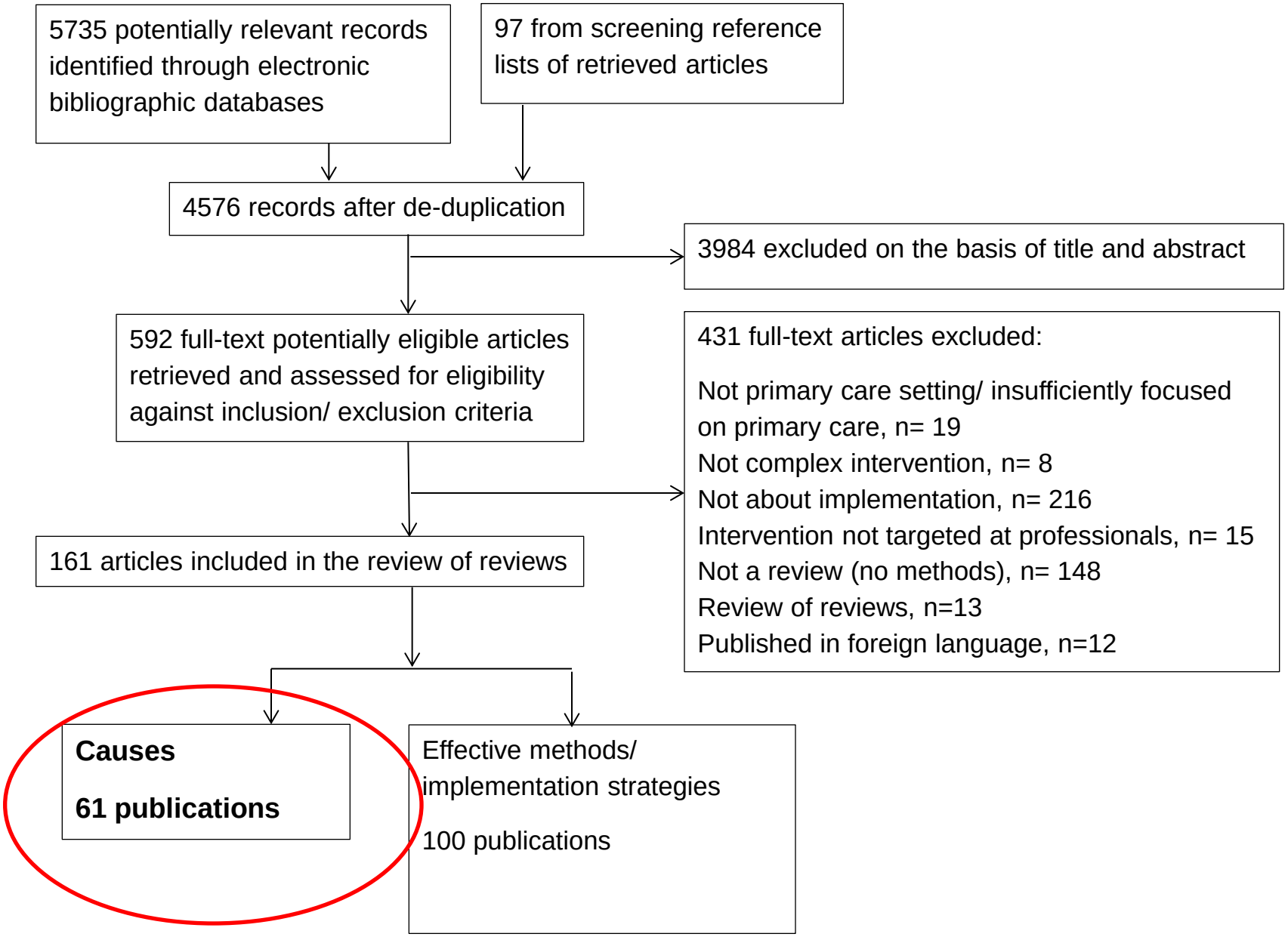
Step 6: synthesis of translation - establish relationships between the studies (reciprocal vs. refutational)

(Walsh, 2005)

Synthesis


Extract list of barriers and facilitators
Read and re-read the papers
Develop initial coding framework (pilot of 10 papers) + descriptors
Continue to map B&F onto the framework
- Modifying themes/ sub-themes
- Re-configuring data
Final coding framework

Results


5735 potentially relevant records identified through electronic bibliographic databases
97 from screening reference lists of retrieved articles
4576 records after de-duplication
3984 excluded on the basis of title and abstract
592 full-text potentially eligible articles retrieved and assessed for eligibility against inclusion/ exclusion criteria
431 full-text articles excluded:
Not primary care setting/ insufficiently focused on primary care, n= 19
Not complex intervention, n= 8
Not about implementation, n= 216
Intervention not targeted at professionals, n= 15
Not a review (no methods), n= 148
Review of reviews, n=13
Published in foreign language, n=12
161 articles included in the review of reviews
Causes
61 publications
Effective methods/ implementation strategies
100 publications

Characteristics of included reviews

- Overwhelmingly referred to “barriers and facilitators”
  - “Barriers” (n = 58); “Facilitators” (n = 39); Both (n = 36).
- 56% (n=28) primary care only; rest = mixed settings
- Review origin:
  - 50% (n = 30) USA / Canada
  - 25% (n = 15) UK
  - 25% (n = 16) Europe / rest of world

Characteristics of included reviews

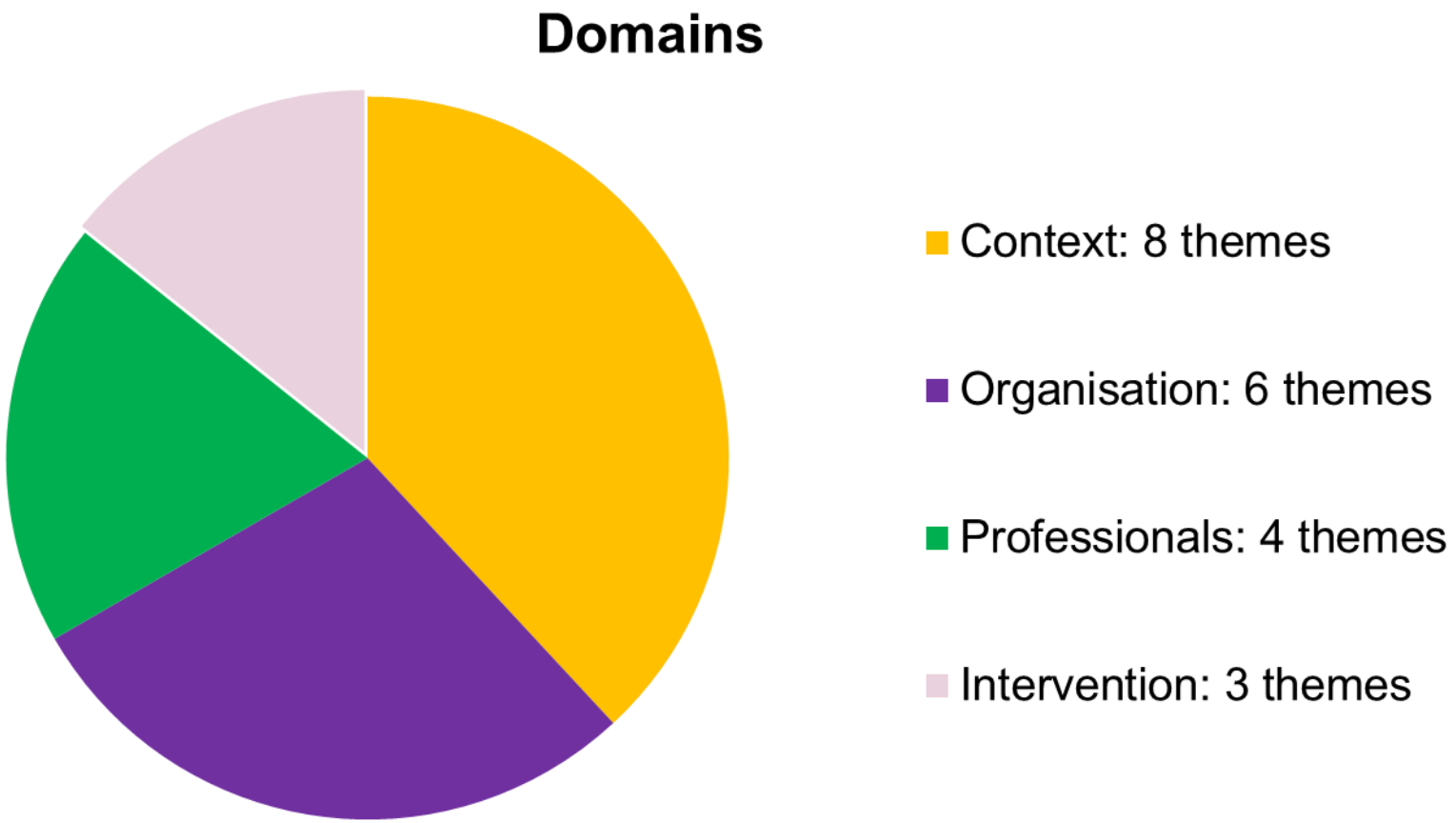
Wide range of topics addressed:

- Guideline implementation (n = 13)
- Disease management (n = 9)
- Technology implementation (n = 21)
- Public health and preventative medicine (n = 10)
- Role integration / change (n = 6)
- Prescribing (n = 1)

23 Mentioned theory (analysis or discussion)

22 Critically appraised included studies

4 Domains


Domains
Context: 8 themes
Organisation: 6 themes
Professionals: 4 themes
Intervention: 3 themes

Context

- Policy & legislation
- Infrastructure
- Economics & financing
- Incentives
- Dominant paradigms
- Public awareness
- Stakeholder buy in
- Technological advances

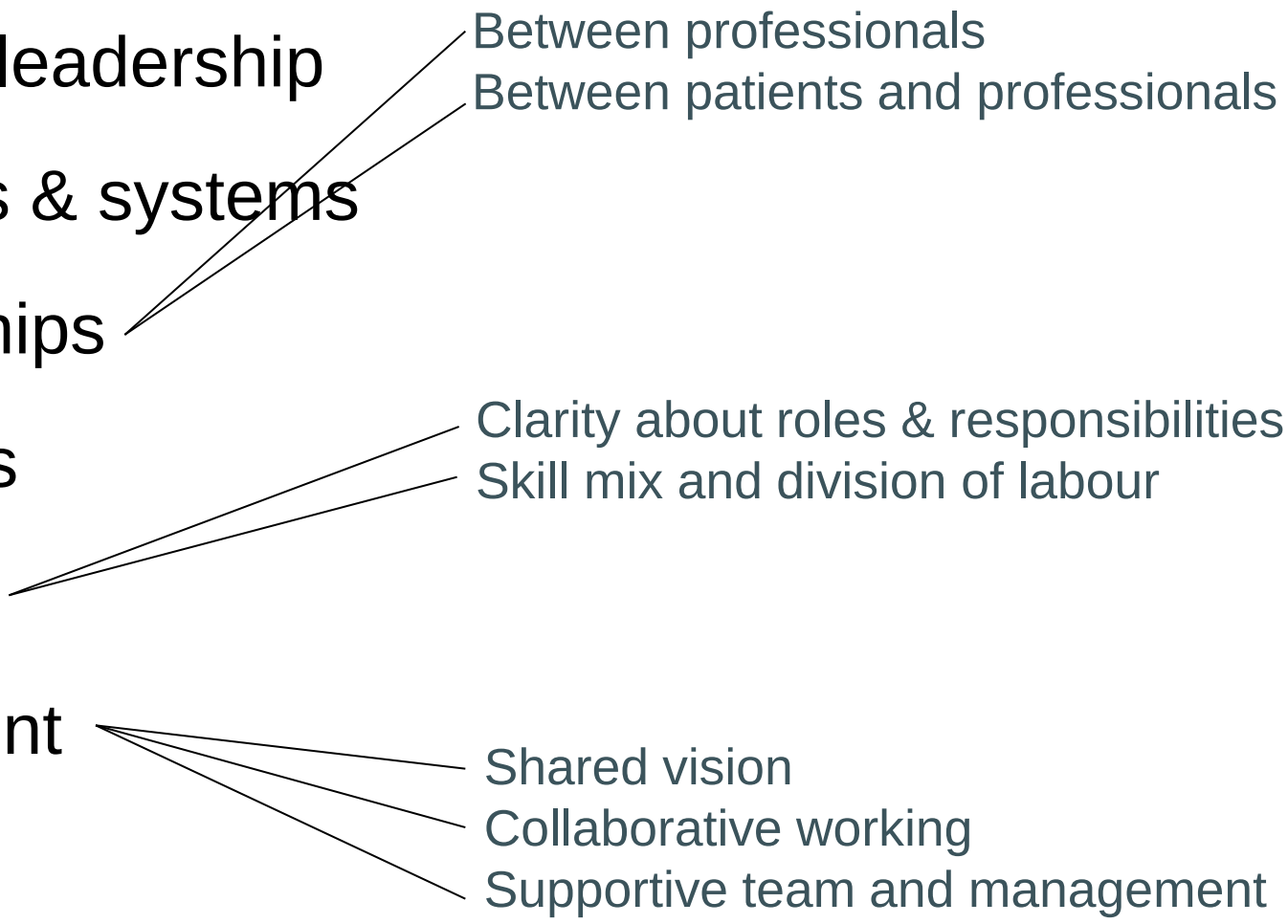
Presence of stated goals / objectives
Regulatory frameworks
Codes of practice
Local and national agendas

Evidence-based medicine, NICE

Patient-centred care

Organisation

- Culture & leadership
- Processes & systems
- Relationships
- Resources
- Skill mix
- Involvement

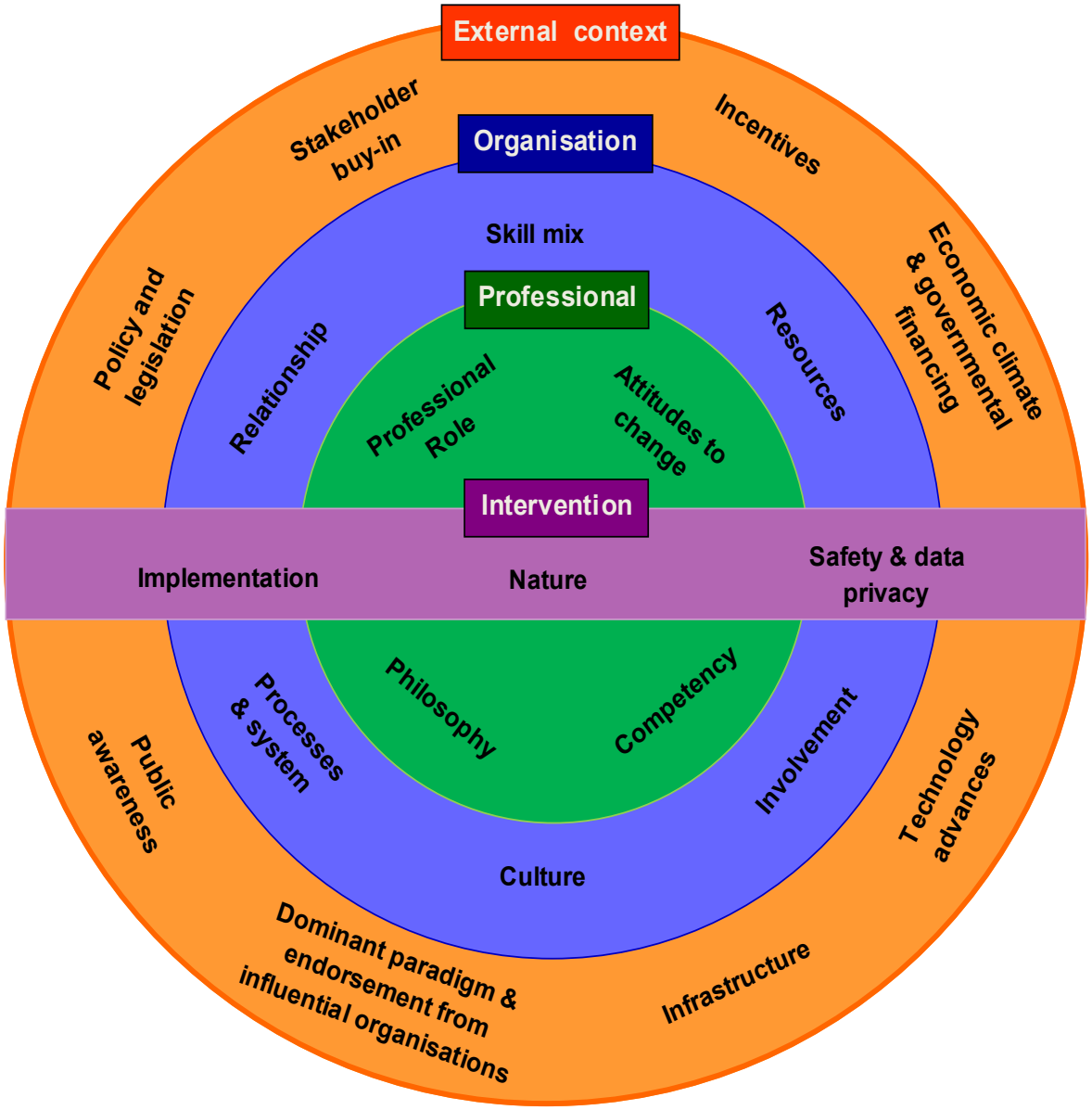


Professionals

- Professional role
  - Authority / influence
  - Peer influences
  - Professionalism
  - Self-efficacy
- Underlying philosophy of care
- Attitudes to change
  - Motivation and priority
  - Prior experience
  - Workload / competing demands
  - Perception of time
- Competencies

Intervention

- Nature & characteristics
  - Clarity
  - Complexity
  - Evidence of benefit
  - Applicability & relevance
  - Costs
  - Cost-effectiveness
- Implementability & adaptability
  - Practicality & utility
  - Complexity of implementation
  - Training requirement
  - Benefit / harm of implementation
  - Adaptability
  - IT compatibility
  - Resource requirements
- Safety & data privacy


External context
Stakeholder buy-in
Incentives
Organisation
Skill mix
Professional
Policy and legislation
Relationship
Resources
Economic climate & governmental financing
Professional Role
Attitudes to change
Intervention
Implementation
Nature
Safety & data privacy
Philosophy
Competency
Processes & system
Involvement
Public awareness
Technology advances
Culture
Dominant paradigm & endorsement from influential organisations
Infrastructure

Implications for practice

1. Implementation is complex – and the 2nd translational gap is not surprising
2. Context, organisation, professionals and the intervention interact with and impact on each other – no good thinking of one in isolation
3. Understanding and defining context is key, as is the “fit” between intervention and context
4. Organisational features may explain variations between practices
5. Don’t blame individual professionals

Implications for research

NOT NEEDED

- Descriptive research on barriers and facilitators.

NEEDED

Theoretically – driven research on:

- Understanding, defining and describing context
- Is the “fit” between context and intervention key?
- Understanding the relative contribution & importance of identified factors
- With a view to designing better implementation strategies

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