

Understanding the implementation of interventions

Carl May



My wonderful collaborator in building NPT....



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“There is nothing so practical as a good theory”
Kurt Lewin

Plan of this talk

1. Implementation as a problem: is it just translating evidence into practice?
2. Normalization Process Theory: implementation as collective action
3. Behaviour in context: why is it difficult to change?

What is implementation?

- Implementation includes *any* deliberately initiated attempt to introduce new, or modify existing, patterns of collective action in health care or some other formal organizational setting.
- Deliberate initiation means that an intervention is: institutionally sanctioned; formally defined; consciously planned; and intended to lead to a changed outcome.
- Participants may seek to modify the ways that people think, act and organize themselves or others, they may seek to initiate a process with the intention of creating a new outcome.

What is implemented?

Interventions

- may be intended to change *behaviour* and its intended *outcomes* (e.g. strategies for making ‘expert patients’; or using telemedicine systems)
- may be intended to change *expertise* and *actions* (e.g. devices; or decision-making tools and clinical guidelines)
- may be intended to change the *procedures* enacted to achieve *goals*. (e.g. electronic health records, ordering systems)

How do we understand implementation?

- Models *map* systems and show how components relate to each other.
- Frameworks *organise* ideas about important components of structures and processes.
- Theories *explain* the operation of relevant structures, mechanisms, and relationships.

More than 60 theories, models, and frameworks relevant to implementation are available to practitioners and researchers (Tabak et al, 2012)

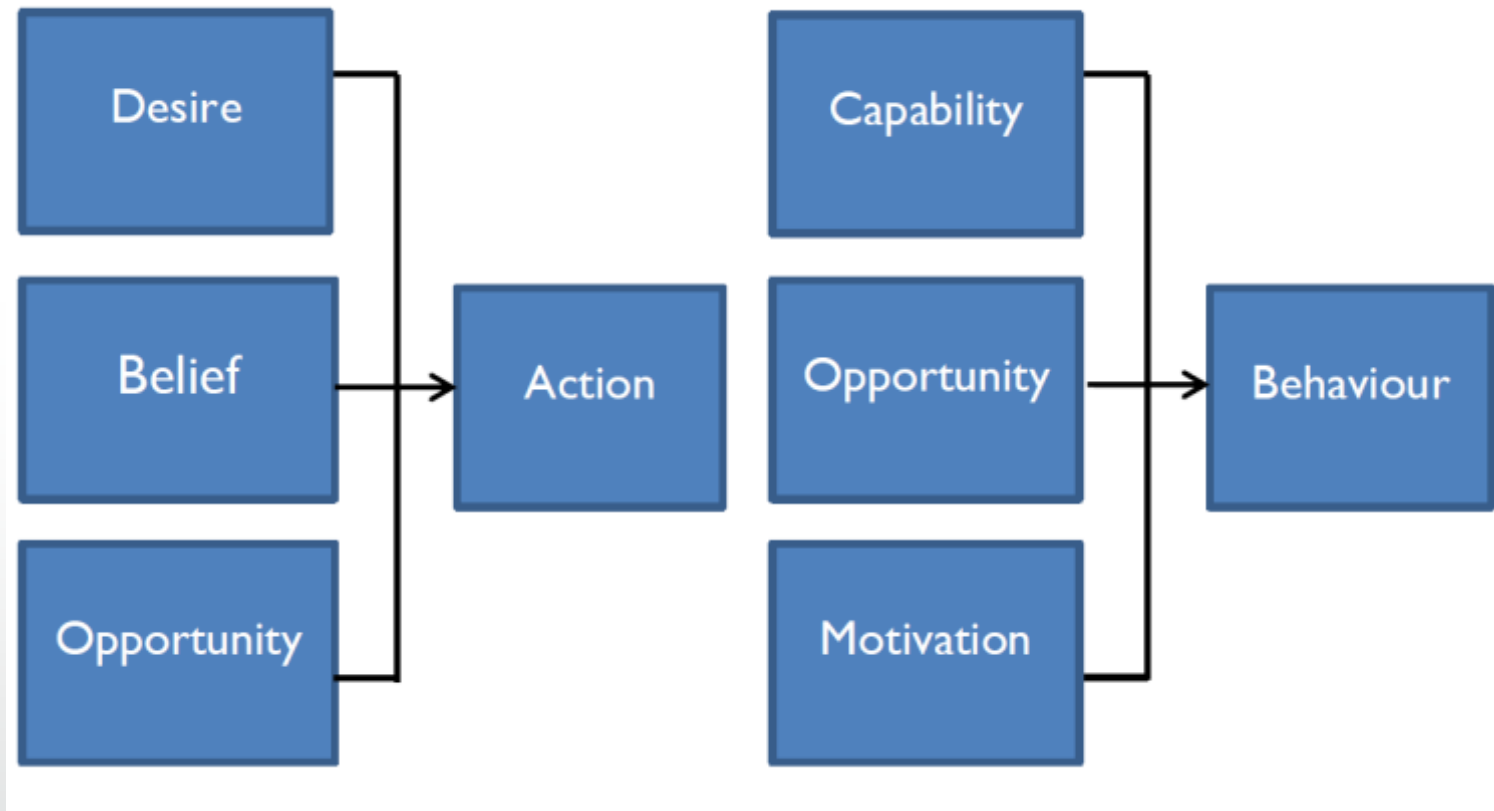
Heavy emphasis on attributes of organizations and policy environments (inner and outer contexts), reflects influence of *diffusion* models.

Heavy emphasis on individual differences (attitudes and intentions), reflects influence of psychological *individualism*.

String Theory

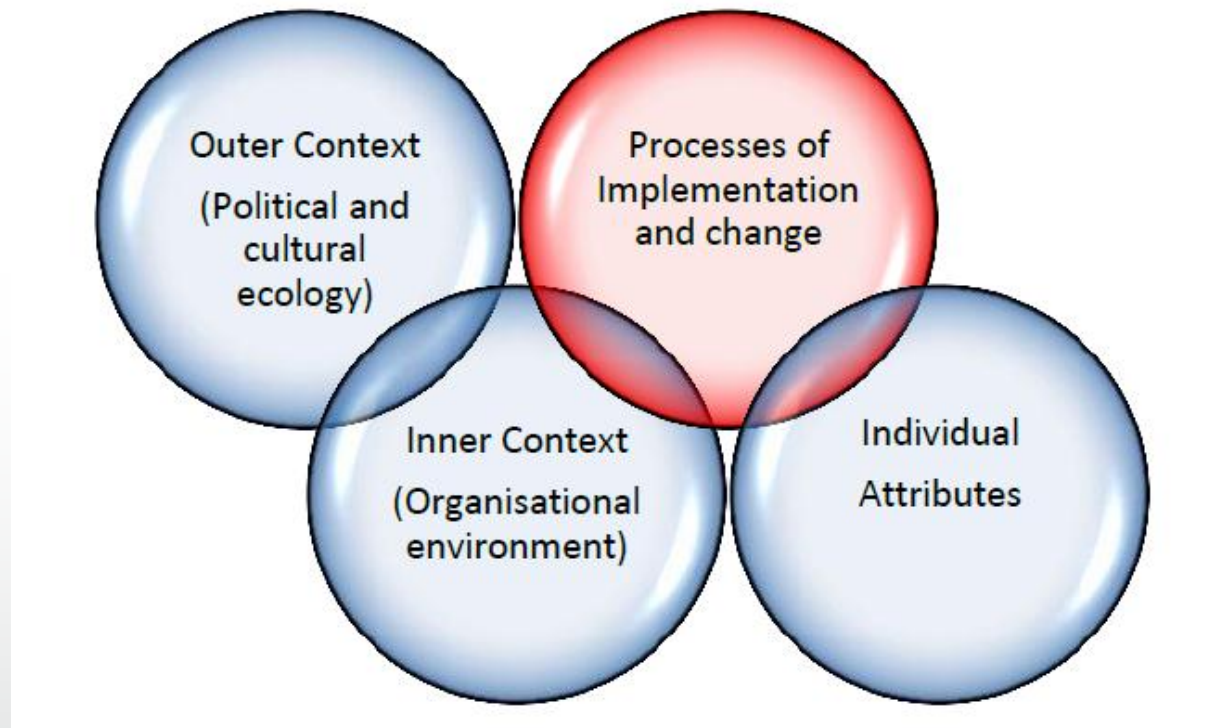


Contending models of instrumental action



Hedstrom (2006) DBO-A & Michie et al (2012) COM-B

Frameworks for implementation



Damschroder et al (2009) Consolidated Framework for Implementation Research

My aim:

- Practical problem: to build an empirically grounded theoretical framework for understanding the implementation of **new or modified ways of conceptualizing, enacting, and organizing practice.**
- Fundamental problem: To **better understand the dynamics of human agency under conditions of constraint.**
- Process: More difficult than it seems (ten years later, still not finished)
- Outcome: **Normalization Process Theory** – middle range theory strongly oriented to practice

DEBATE

Open Access

Towards a general theory of implementation

Carl May

Abstract

Understanding and evaluating the implementation of complex interventions in practice is an important problem for those who must operationalize them beyond formal theory. This paper sets out some

Implementing, Embedding, and Integrating Practices: An Outline of Normalization Process Theory

- **Carl May**
Newcastle University
- **Tracy Finch**
Newcastle University

BMC Health Services Research

Bio

Research article

A rational model for assessing and evaluating complex interventions in health care

Carl May*

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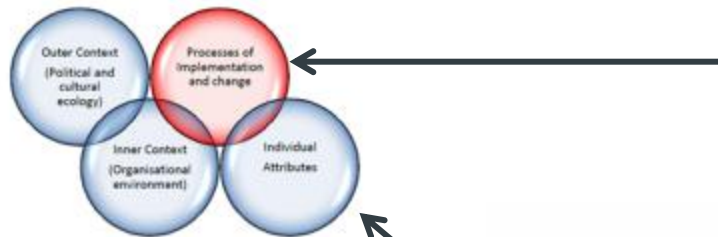
ABSTRACT

Understanding the processes by which practices become n

Open

NIHR
CLAHRC
Wessex

Frameworks for implementation



Damschroder et al (2009) Consolidated Framework for Implementation

Implementing, Embedding, and Integrating Practices: An Outline of Normalization Process Theory

- Carl May
Newcastle University
- Tracy Finch
Newcastle University

ABSTRACT

Understanding the processes by which practices become routinely embedded in

Implementation mechanisms
What people do

May Implementation Science 2013, 8:18
<https://www.implementationscience.com/content/8/1/18>



DEBATE Open Access

Towards a general theory of implementation

Carl May

Abstract

Understanding and evaluating the implementation of complex interventions in practice is an important problem for healthcare managers and policy makers, and for patients and others who must operationalize them beyond formal clinical settings. It has been argued that this work should be founded on theory that provides a foundation for

BMC Health Services Research

Research article

A rational model for assessing and evaluating complex interventions in health care

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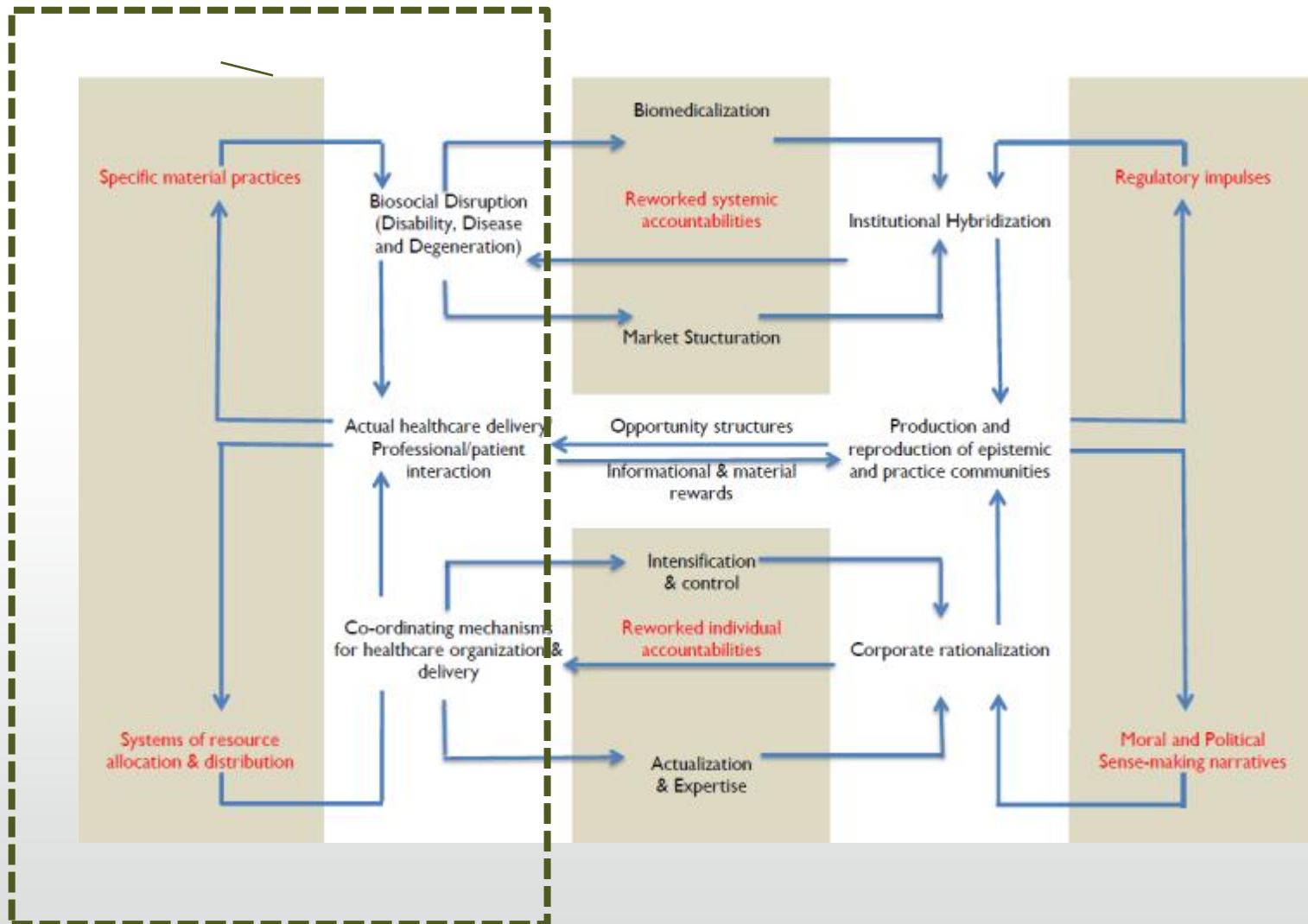
Workability and integration
Properties of interventions

Dynamic elements of context
Resources people draw on

It's all about the work

- What is the work? (How is a practice made *coherent* by its users?)
- Who does the work? (How do people and groups come to *participate* into a complex intervention?)
- How does the work get done? (How is a complex intervention *enacted* in practice?)
- Why did the work happen like that? (How is a complex intervention *monitored* by its users?)

What is being implemented, where?



RESEARCH ARTICLE

Open

Embedding effective depression care: using theory for primary care organisational and systems change

BMJ 2013;346:f2882 doi: 10.1136/bmj.f2882 (Published 13 May 2013)

Jane M Gunn^{1*}, Victoria J Palmer¹, Ch Renata Kokanovic⁵, Grant A Blashki⁶, K

Abstract

Background: Depression and related conditions are a major public health problem. Implementing the evidence about what works for researchers and service designers. The

Provider experiences of the implementation of a new tuberculosis treatment programme: A qualitative study using the normalisation process model


Salla Atkins^{1,2*}, Simon Lewin^{1,3}, Karin C Ringsberg⁴ and Anna Thorson²

Abstract

Background: Tuberculosis (TB) is a major contributor to the global burden of disease. In many settings, including South Africa, treatment outcomes remain poor. In contrast, many antiretroviral treatment (ART) programmes are

RESEARCH

Implementation of self management support for long term conditions in routine primary care settings: cluster randomised controlled trial

 OPEN ACCESS

Anne Kennedy *senior research fellow*¹, Peter Bower *professor of health services research*², David Goldberg *senior research fellow in statistics*², Tom Blakeman *NH&A clinical lecturer in primary care*²

УНИВЕРСИТЕТА

№1(17)

Violence and Victims, Volume 26, Number 1, 2011

Pandora Doesn't Live Here Anymore: Normalization of Screening for Intimate Partner Violence in Australian Antenatal, Mental Health, and Substance Abuse Services

Jo Spangaro, B Soc Wk (Hons), PhD
Roslyn G. Poulos, MB BS, MPH, PhD, FAFPHM
Anthony B. Zwi, MB BCh, MSc, PhD, FFPHM, FAFPHM
The University of New South Wales

Routine screening for intimate partner violence (IPV) has been widely introduced in health settings, yet screening rates are often low. A screening policy was introduced statewide in Australia in antenatal, mental health, and substance abuse services. Annual snapshot indicates a sustained screening rate of 62%–75% since 2003. Focus group research with health care workers from 10 services found that initial introduction of screening was facilitated

О.О. Мельникова

ТЕОРИЯ НОРМАЛИЗАЦИИ ПРОЦЕССОВ: ОБЪЯСНИТЕЛЬНАЯ МОДЕЛЬ ИННОВАЦИЙ В МЕДИЦИНЕ (НЕКОТОРЫЕ КРИТИЧЕСКИЕ ЗАМЕЧАНИЯ)

Представлена попытка понять суть теории нормализации процессов (Normalization Process Theory, далее ТНП), основанной на социологических подходах и предлагающей свою объяснительную модель процессов включения новых технологий в сферу здравоохранения. Центральным понятием теории нормализации процессов является «нормализация», которое может быть инструментальным для исследований. В тексте

Capacity and Potential - the social and cognitive resources on which agents draw (May 2013a,b)

1. The incorporation of a complex intervention within a social system depends on structural effects on agents' **capacity** to co-operate and co-ordinate their actions.
2. The translation of **potential** into collective action depends on agents' potential to enact the complex intervention.

Contribution - the mechanisms through which agency is expressed (May & Finch 2009)

3. The implementation of a complex intervention depends on agents' **contributions** that carry forward in time and space.

3.1 Implementation of a complex intervention is dependent on work that defines and organizes a practice as a cognitive and behavioral ensemble.

3.2 Implementation of a complex intervention is dependent on work that defines and organizes the actors implicated in a practice.

3.3 Implementation of a complex intervention is dependent on work that defines and operationalizes a practice.

3.4 Implementation of a complex intervention is dependent on work that defines and organizes the everyday understanding of a practice.

Capability - attributes of the relations between people and things (May 2006, May et al 2007a,b)

4. The capability of agents to employ a complex intervention depends on its **workability** and **integration** within a social system.

4.1 Workability of a complex intervention depends on the extent to which it confers an interactional advantage to the user.

4.2 Integration of a complex intervention depends on the extent of users' confidence in it.

4.3 Workability of a complex intervention depends on the extent to which it is calibrated to a skill-set in a division of labor.

4.4 Integration of a complex intervention depends on the extent to which it confers an advantage in executing tasks.

Normalisation Process Theory: core components

Capability: How users interact with interventions

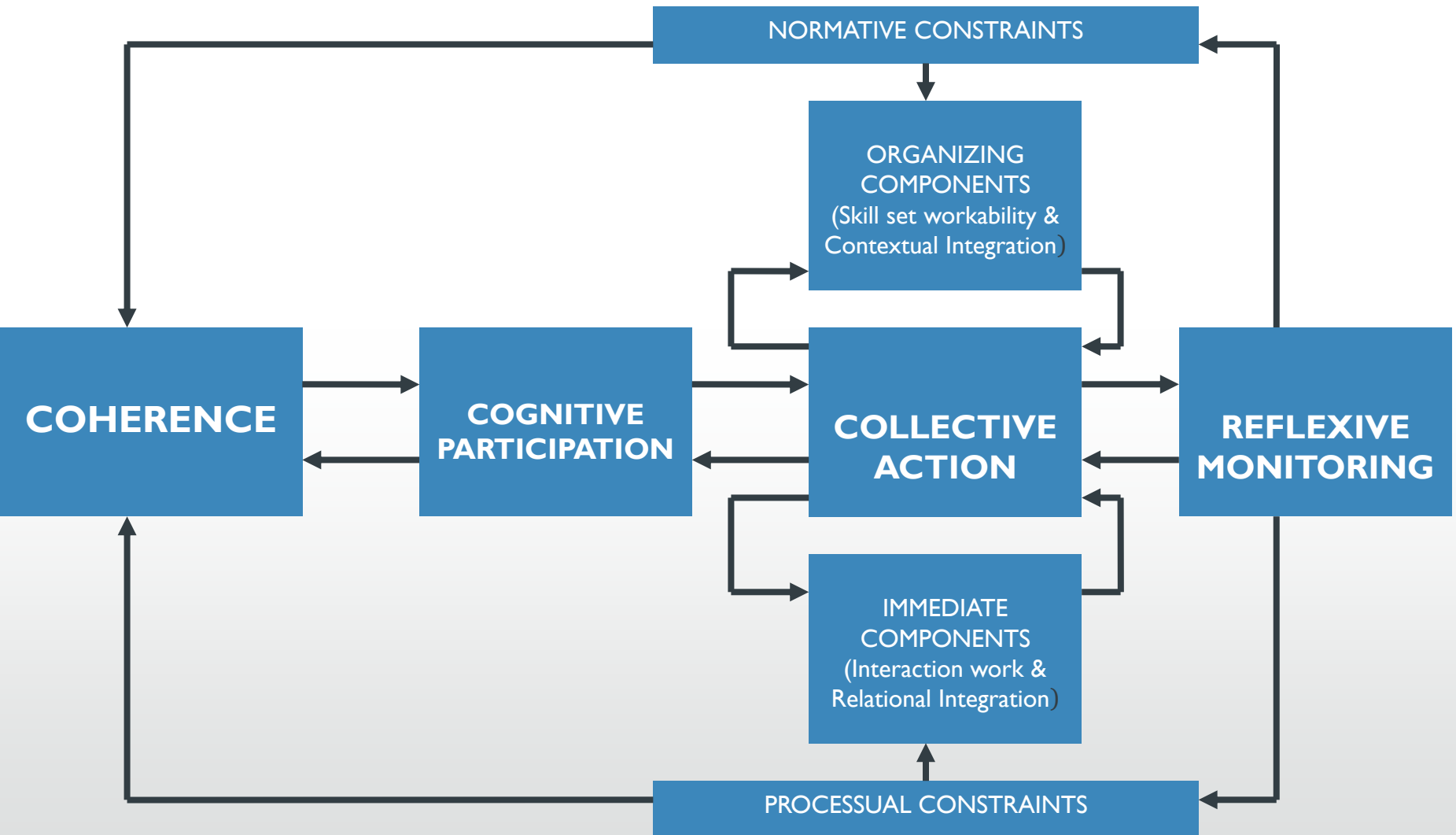
Interactional workability: how a complex intervention is practically operationalized by the people using it

Skill-set workability: the distribution and conduct of work associated with a complex intervention in a division of labour

Relational integration: how knowledge and work about a complex intervention is mediated and understood within networks.

Contextual integration: the realization of resources of a complex intervention within an organizational domain.

collective action/ analytic model



Contribution: the work that people do to implement complex interventions

Coherence: defines and organizes the components of a complex intervention

Collective Action: defines and organizes the enacting of a complex intervention

Cognitive Participation: defines and organizes the people implicated in a complex intervention

Reflexive Monitoring: defines and organizes assessment of the outcomes of a complex intervention

Does it matter that we know this?

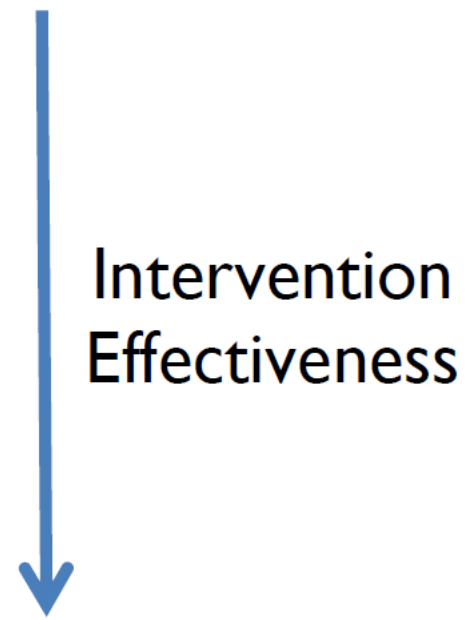
Problem of professional behaviour change

- **Mark Johnson** (NIHR Doctoral Fellow) & Carl May
- Overview of systematic review of studies (excluding public health studies and incentivization studies)
- Coded studies to Cochrane EPOC taxonomy, graded effectiveness in achieving behaviour change, coded intervention components using NPT

- *What are the characteristics of relatively successful behaviour change interventions?*
- *Why are these characteristics important?*

Behaviour change interventions that focus on action and monitoring may be more likely to be effective

NPT Constructs	Coherence	Cognitive Participation	Collective Action	Reflexive Monitoring
EPOC PI				
Marketing	Blue	Blue		
Local opinion leaders	Blue	Blue		
Mass media	Blue	Blue		
Local consensus processes	Blue	Blue		
Distribution of educational materials				
Educational meetings				
Patient mediated interventions				
Educational outreach visits				
Audit and feedback				
Reminders (Embedded in HER)				



Spread of NPT constructs shifts towards Action and Monitoring

Two hypotheses: need to be investigated in large prospective studies

- **Hypothesis 1.**
 - *Interventions that seek to reshape the attitudinal landscape in which professional behaviours are enacted are less likely to lead to behaviour change.*
- **Hypothesis 2.**
 - *Interventions that seek to restructure and reinforce practice norms and associate them with peer and reference group behaviours are more likely to lead to behaviour change.*

Robust understanding of implementation processes leads us to:

- Change the things that people *do* rather than the things that they *believe*.
- Change the rules, resources, and relationships that they mobilize for action.
- Consider action *in context*, where contexts are dynamic players rather than obdurate obstacles.

• Thank you

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