

***Implementing service development in
healthcare —
an introduction to Normalization Process Theory
(NPT).***

Dr. Mike Bracher
07/02/2018

- **Session 1 – What is NPT (overview and description) – 40mins (+10mins questions)**
 - ***BREAK – 10mins***
- **Session 2 – Applications of NPT: three examples – 40mins (+10mins questions)**
 - ***BREAK – 10mins***
- **Session 3 – Group activity: applying NPT to health services research and development (40mins)**
- **Recap and final thoughts (20mins)**
- **End (16.00)**

After the seminar, attendees should have:

- Basic **understanding of the NPT framework**, and ability to **describe the four main constructs**.
- Familiarity with **applications in process evaluation and service development** research.
- Experience of **using the framework to derive research questions** for investigating implementation of new practices, protocols, or technologies in healthcare settings.

What is NPT? (Session 1)

What is NPT?

*‘Implementation theories are **useful**. They provide **explanations** for relevant phenomena, propose important **research questions**, and **frame the collection and analysis of data**. These explanations are **generalizable**, and facilitate **comparative** studies. Implementation researchers now have a wide range of useful theoretical tools at their disposal¹.’*

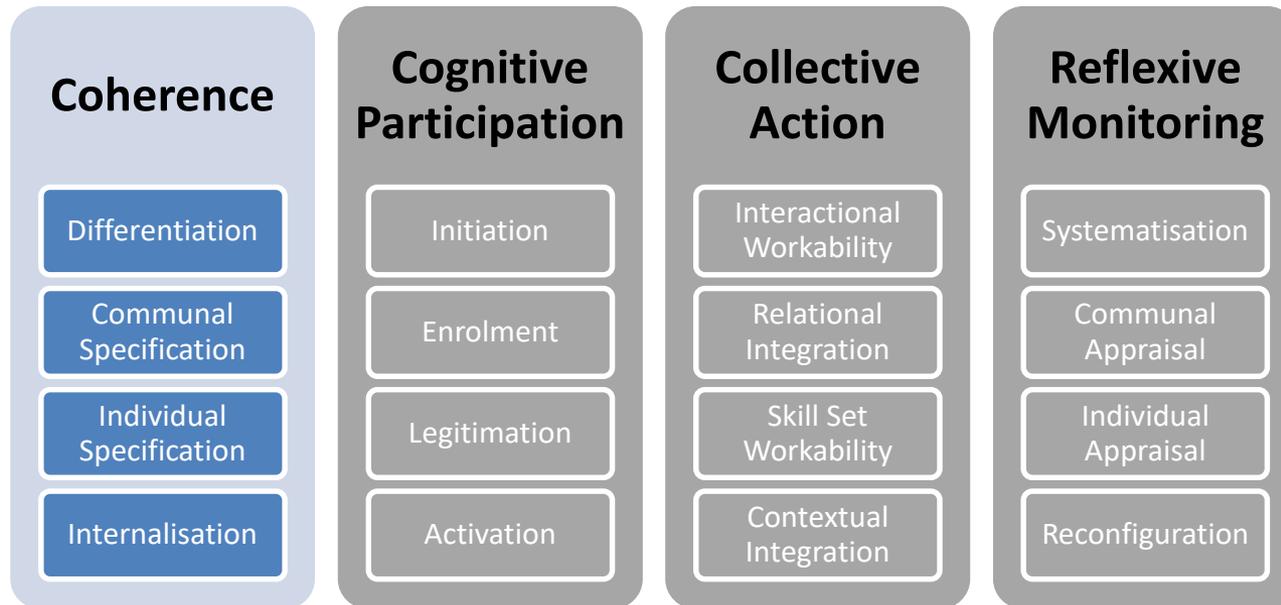
*‘**Normalization Process Theory (NPT)**, is one of these. It identifies, characterises and explains mechanisms that have been empirically demonstrated to motivate and shape **implementation processes** and affect their **outcomes**.’ (May et al., forthcoming)*

¹See: Greenhalgh, T. (2017). *How to Implement Evidence-Based Healthcare*. Wiley. Retrieved from <https://books.google.co.uk/books?id=ySgnDwAAQBAJ>

What is NPT, and how is it used?

- **Normalization Process Theory** facilitates understanding by focusing attention on the mechanisms through which participants invest and contribute to them.
- It reveals "the **work** that actors do as they engage with some **ensemble of activities** (that may include **new or changed ways of thinking, acting, and organizing**) and by which means it becomes **routinely embedded** in the matrices of already existing, socially patterned, knowledge and practices"

*‘The **sense-making work** that people do individually and collectively when they are faced with the problem of operationalizing some set of practices.’*



Coherence

Differentiation

Communal
Specification

Individual
Specification

Internalisation

'How agents [people] understand that a set of practices and their objects are different from each other.'

Example - Doctors using a videoconferencing system to consult with patients, what do they do to understand and organize the differences between face-to-face consultations and videoconferencing



Coherence

Differentiation

Communal
Specification

Individual
Specification

Internalisation

*‘Sense-making relies on **people working together** to build a **shared understanding** of the aims, objectives, and expected benefits of a set of practices.’*

Example - Team of investigators leading a clinical trial, as they work out how to integrate a complex clinical experiment into a healthcare setting, and as they try to identify and anticipate the relationship between elements of the trial and everyday clinical practice.



Coherence

Differentiation

Communal
Specification

Individual
Specification

Internalisation

*‘Sense-making has an **individual component** too. Here participants in coherence work need to do things that will help them **understand their specific tasks and responsibilities** around a set of practices.’*

Example - Clinical staff recruiting patients into a trial need to have a strong understanding of the work they must do to secure informed consent from patients, and how they will go about this?



Coherence

Differentiation

Communal
Specification

Individual
Specification

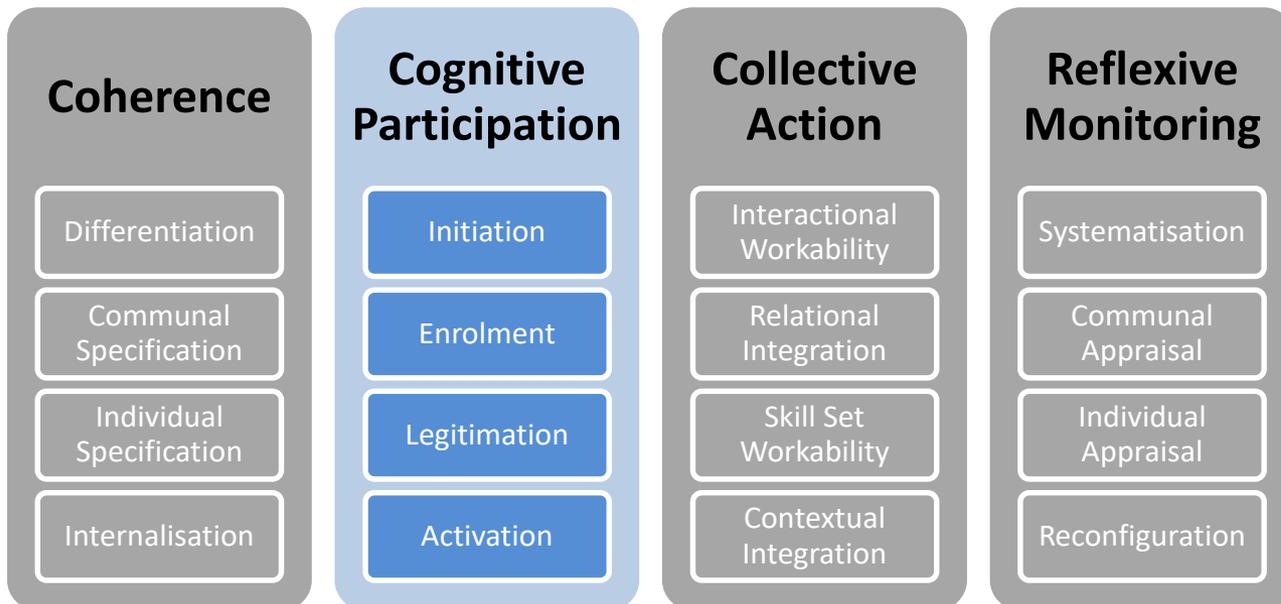
Internalisation

‘Sense-making involves people in work that is about understanding the value, benefits and importance of a set of practices.’

Example – ‘Returning to the example of doctors using a videoconferencing system to consult with their patients, it's about the work that they do to attribute worth to a new way of working.’



*‘Cognitive Participation is the **relational work** that people do to build and sustain a community of practice around a new technology or complex intervention.’*



Cognitive Participation

Initiation

Enrolment

Legitimation

Activation

*‘When a set of practices is new or modified, a core problem is **whether or not key participants are working to drive them forward.**’*

Example - The work of setting up a clinical service is often delegated to a small group of managers and professionals who are charged with the work of setting up systems, procedures, and protocols and engaging with others to make things happen.



Cognitive Participation

Initiation

Enrolment

Legitimation

Activation

*‘Participants may need to **organize or reorganize themselves and others** in order to collectively contribute to the work involved in new practices. This is complex work that may involve **rethinking individual and group relationships** between people and things.’*

Example - Getting ICT staff to 'buy in' to a falls prevention strategy is vital to its success, but the work of buying in to the strategy is not simply about individual commitment, but is about building communal engagement.



Cognitive Participation

Initiation

Enrolment

Legitimation

Activation

*‘An important component of relational work around participation is the **work of ensuring that other participants believe it is right for them to be involved, and that they can make a valid contribution to it.**’*

Example - New service interventions often founder because of a lack of investment in ensuring that they fit with the ways that different groups of professionals - and sometimes patients - define their possible contribution to them.



Cognitive Participation

Initiation

Enrolment

Legitimation

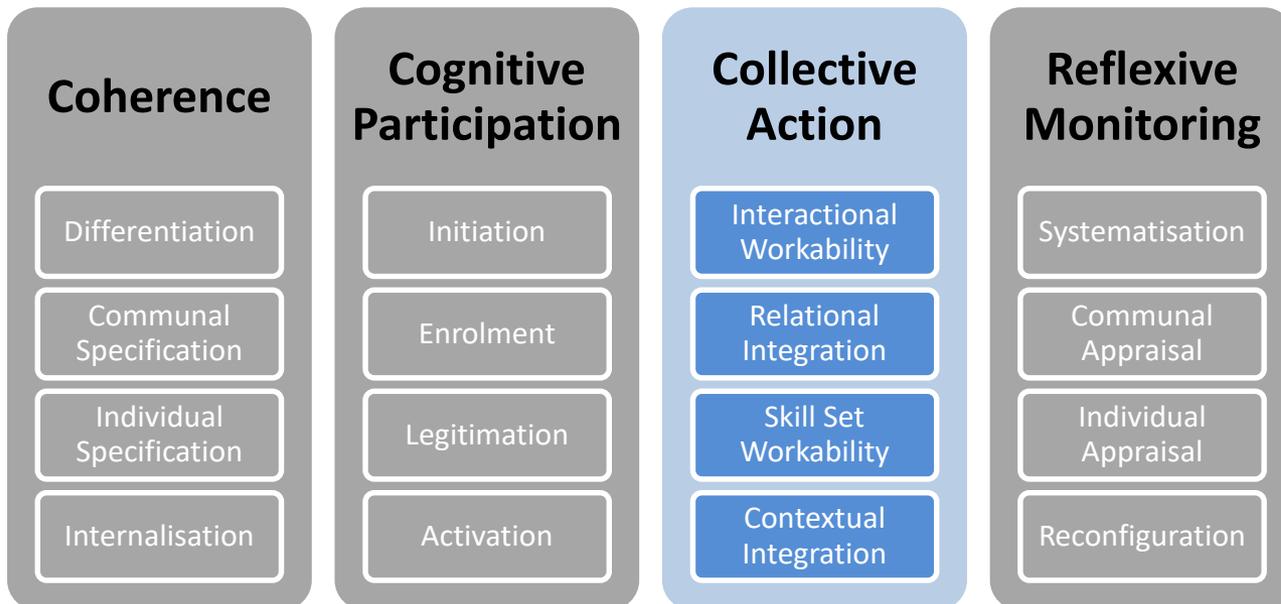
Activation

*‘Once it is underway, participants need to **collectively define the actions and procedures needed to sustain a practice and to stay involved.**’*

Example - Staying on the case is vital to sustaining clinical interventions. This is the work of keeping the new practices in view and connecting them with the people who need to be doing them.



*‘Collective Action is the **operational work** that people do to enact a set of practices, whether these represent a new technology or complex healthcare intervention.’*



Collective Action

Interactional
Workability

Relational
Integration

Skill Set
Workability

Contextual
Integration

*'This refers to the **interactional work** that people do **with each other, with artefacts, and with other elements** of a set of practices, when they seek to **operationalize them** in everyday settings.'*

Example - A key problem of telemedicine systems has been shown to be their negotiation by doctors and patients as they try to communicate complex clinical information each other over a videoconferencing link.



Collective Action

Interactional
Workability

Relational
Integration

Skill Set
Workability

Contextual
Integration

*‘So this is the **knowledge work** that people do to **build accountability and maintain confidence** in a set of practices and in each other as they use them.’*

Example - A telemedicine system that transmitted clinical images of skin lesions ran into trouble when individual doctors began to lose confidence in what these images actually represented, and started to examine patients in parallel to digitized images - thus doubling their workload and putting their clinical department under pressure.



Collective Action

Interactional
Workability

Relational
Integration

Skill Set
Workability

Contextual
Integration

'Allocation work that underpins the division of labour that is built up around a set of practices as they are operationalized in the real world.'

Example - a core problem for a research group investigating the effectiveness of a decision aid for medication choice after a serious illness event was whether the decision aid should be administered by trial managers with no clinical responsibility for the patient, or nurse practitioners actively involved in their care.



Collective Action

Interactional
Workability

Relational
Integration

Skill Set
Workability

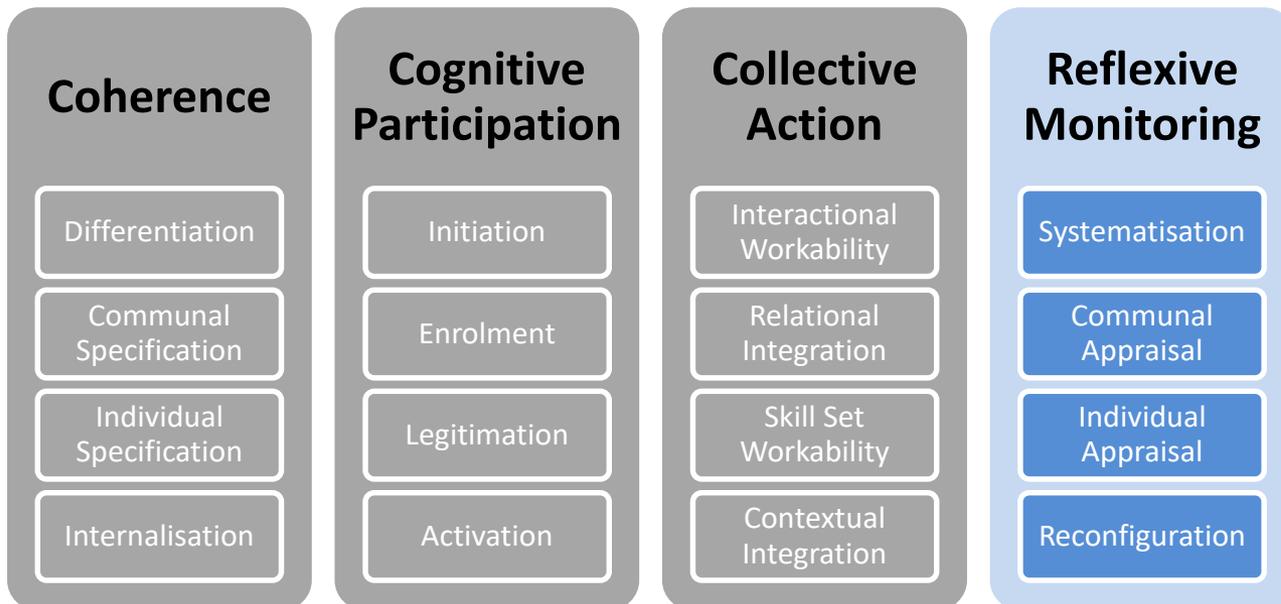
Contextual
Integration

'Resource work - managing a set of practices through the allocation of different kinds of resources and the execution of protocols, policies and procedures.'

Example - Typically, the implementation of a new set of practices is seen as a management problem, as the power to allocate resources and define the processes by which new technologies or complex interventions are executed in practice often lies with this group.



*‘Reflexive Monitoring is the **appraisal work** that people do to assess and understand the ways that a new set of practices affect them and others around them.’*



Reflexive Monitoring

Systematisation

Communal
Appraisal

Individual
Appraisal

Reconfiguration

*‘Participants in any set of practices may seek to **determine how effective and useful it is for them and for others, and this involves the work of collecting information in a variety of ways.**’*

Example - The work of systematization may be highly formal – e.g. an RCT. But it may also be very informal, the collection of anecdotal examples of problems in practice around a set of common themes by an unqualified care assistant is every bit as much an example of the systematization of information.



Reflexive Monitoring

Systematisation

Communal
Appraisal

Individual
Appraisal

Reconfiguration

*Participants **work together** - sometimes in **formal** collaboratives, sometimes in **informal** groups to **evaluate the worth** of a set of practices. They may use many different means to do this drawing on a variety of experiential and systematized information.*

Acts of communal appraisal - like data analysis meetings in clinical trials, or quality circles in lean healthcare organizations - are common and may be highly formalized as well as casual and informal.



Reflexive Monitoring

Systematisation

Communal
Appraisal

Individual
Appraisal

Reconfiguration

*‘Participants in a new set of practices also **work experientially as individuals to appraise its effects on them and the contexts in which they are set. From this work stem actions through which individuals express their personal relationships to new technologies or complex interventions.**’*

Example - For example, a nurse working in a falls prevention program will work to appraise not only the worth of the program, but also its impact on her other tasks. So, a falls program that complicates and adds to an already complicated and demanding workload may well be have a low value attributed to it in practice irrespective of its effects on falls within the hospital.



Reflexive Monitoring

Systematisation

Communal
Appraisal

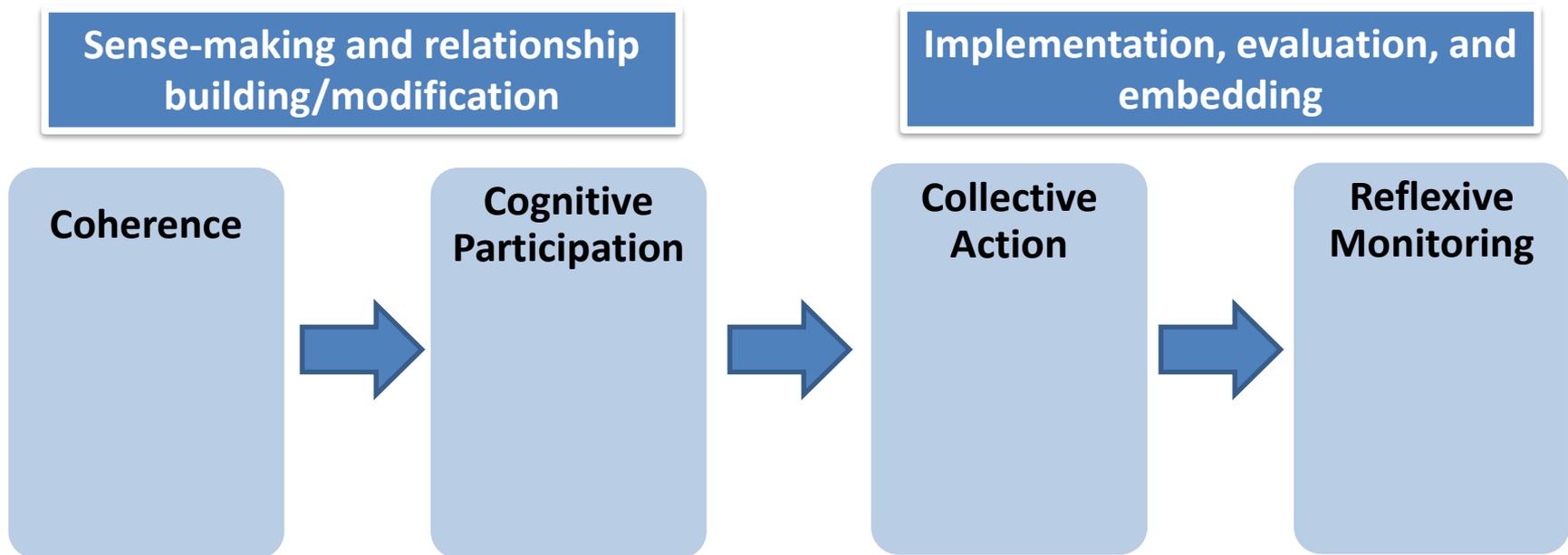
Individual
Appraisal

Reconfiguration

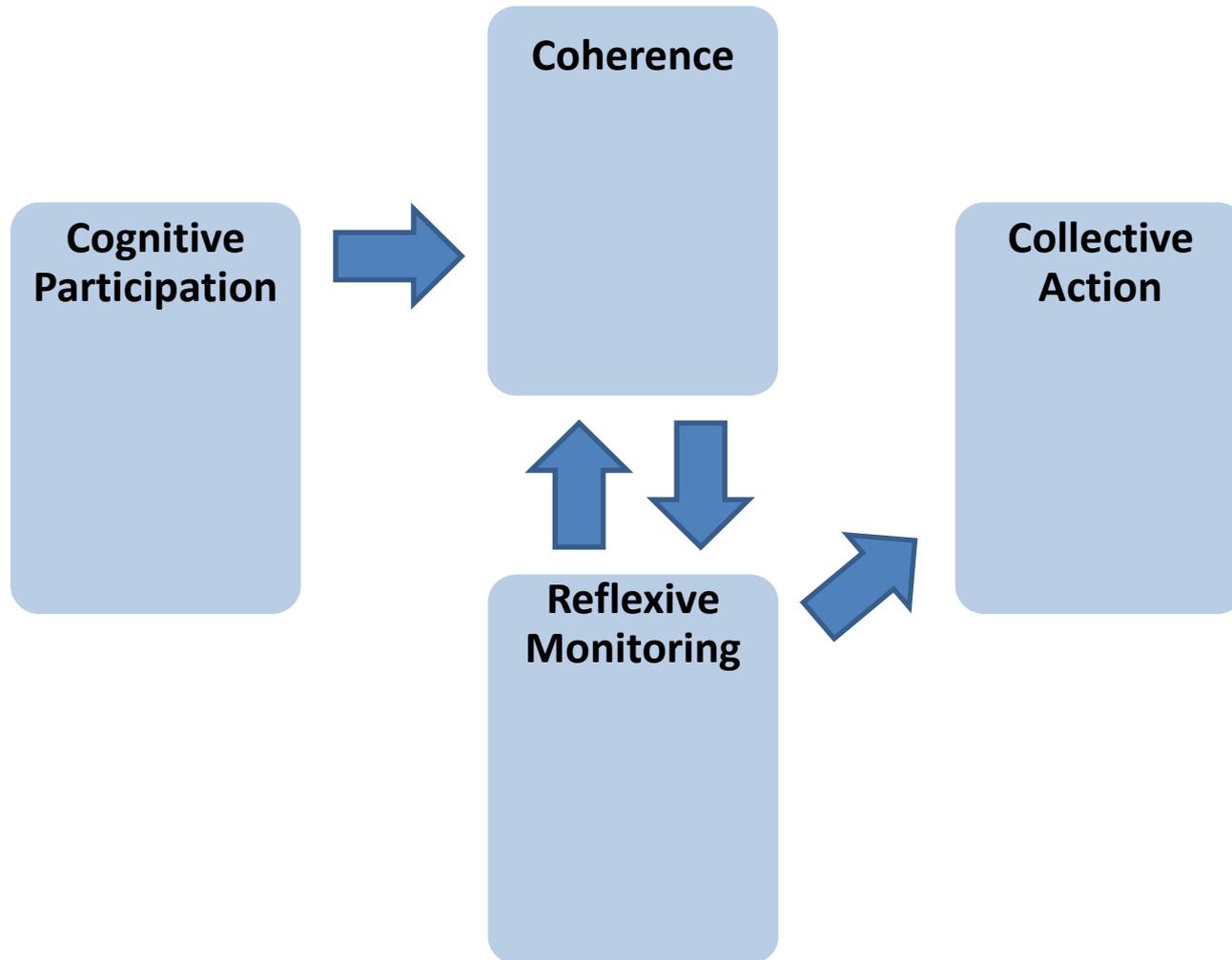
*‘Appraisal work by individuals or groups may lead to attempts to **redefine procedures or modify practices – and even change the shape of the new technology itself.**’*

Example - For example, a nurse leading a falls prevention program might look again at the ways in which risk of falling was calculated in practice and the demands that this risk placed on the delivery of nursing care elsewhere on the ward. If the work of calculating risk of falling was disproportionate to the work involved in dealing with other kinds of risks on the ward, then there would be pressure to modify the falls prevention program to make it workable in practice.





Relationships between constructs



Implementation (initial) and embedding (longer term)

NPT Constructs		Spread of NPT constructs within intervention															Total	
		Coherence			Cognitive participation				Collective action				Reflexive monitoring					
		Individual specification	Communal specification	Internalization	Initiation	Legitimation	Enrolment	Activation	Interactional workability	Relational integration	Contextual integration	Skill set workability	Systematization	Individual appraisal	Communal appraisal			
Increasing intervention effectiveness →	EPOC Professional intervention																	
	Patient-mediated interventions																	3
	Audit and feedback																	6
	Educational outreach visits																	5
	Reminders																	6
	Educational meetings																	3
	Distribution of educational materials																	3
	Marketing																	3
	Local consensus processes																	1
	Mass media																	2
Local opinion leaders																	1	
Total		0	4	2	2	3	3	0	3	3	3	2	3	2	3			

- Normalisation Process Model (NPM, 2007).
- **Normalisation Process Theory (NPT, 2009) – *focus of this seminar***
- Extended Normalisation Process Theory (ENPT, 2013).

May, C. (2013). Towards a general theory of implementation. *Implementation Science*, 8(1), 18. <http://doi.org/10.1186/1748-5908-8-18>

May, C., & Finch, T. (2009). Implementing, Embedding, and Integrating Practices: An Outline of Normalization Process Theory. *Sociology*, 43(3), 535–554. <http://doi.org/10.1177/0038038509103208>

May, C., Finch, T., Mair, F., Ballini, L., Dowrick, C., Eccles, M., ... Heaven, B. (2007). Understanding the implementation of complex interventions in health care: the normalization process model. *BMC Health Services Research*, 7(1), 148. <http://doi.org/10.1186/1472-6963-7-148>

Applications of NPT (Session 2)

In this session

- *How has NPT been used? An overview.*
- *NPT in practice – three case studies.*

How has NPT been used? An overview.

Review currently in progress (May et al.) has identified 105 articles from 90 identifiable studies, where NPT was used as the sole framework. These include:

Service organisation and delivery.

- E.g. Grant et al. (2017) evaluated a complex intervention aimed at reducing risk in prescribing in primary care.

Diagnostic and therapeutic interventions

- E.g. Hoberg et al. (2013), examined the implementation of a new form of group therapy for people with mental health problems, while Leon et al [83] showed how provider initiated testing and counselling for HIV was successfully normalised in a South African setting.

Grant A, Dreischulte T, Guthrie B: Process evaluation of the data-driven quality improvement in primary care (DQIP) trial: Active and less active ingredients of a multi-component complex intervention to reduce high-risk primary care prescribing. *Implementation Science* 2017, 12(1).

Hoberg AA, Vickers KS, Ericksen J, Bauer G, Kung S, Stone R, Williams M, Moore MJ, Frye MA: Feasibility evaluation of an interpersonal and social rhythm therapy group delivery model. *Archives of psychiatric nursing* 2013, 27(6):271-277.

How has NPT been used? An overview.

Studies of implementation of E-Health and telemedicine—including telephone advice.

- *E.g. Wilhemsen et al (2014) showed how problems of participation and action—and especially the interactional workability—of a service providing internet-based cognitive behavioural therapy led to ambivalence on the part of general practitioners about its use, to low levels of follow up, and to doctors reverting to ‘standard treatment’.*

Implementing change in professional roles.

- *E.g. For example, Thomas, et al. (2014) showed how changes in roles and workload interacted to promote the routine embedding of an intervention intended to manage incontinence in stroke patients.*

How has NPT been used? An overview.

Guideline implementation

- *E.g. Vest et al. (2015) described a study in the US of the implementation of guidelines for the management of chronic kidney disease in primary care. They asserted that NPT could not only identify key barriers to practice, but could also guide intervention choice.*

Open Access

Research

BMJ Open Successfully implementing and embedding guidelines to improve the nutrition and growth of preterm infants in neonatal intensive care: a prospective interventional study

Mark J Johnson,^{1,2} Alison A Leaf,^{1,2} Freya Pearson,² Howard W Clark,^{2,3} Borislav D Dimitrov,⁴ Catherine Pope,⁵ Carl R May⁵

(2) Identifying barriers to implementation of a stroke carer training programme
(Clarke et al., 2013)

(1) Developing, guiding, and driving implementation
(Johnson et al., 2017)

RESEARCH

Open Access

Implementing a training intervention to support caregivers after stroke: a process evaluation examining the initiation and embedding of programme change

David James Clarke^{1*}, Mary Godfrey³, Rebecca Hawkins³, Euan Sadler², Geoffrey Harding⁵, Anne Forster¹, Christopher McKeivitt², Josie Dickerson¹ and Amanda Farrin⁴



(3) INSCCOPE – Implementing Nutrition Screening in Community Care for Older People: (Bracher, Murphy, Steward, Wallis & May, ongoing)

Developing, guiding, and driving implementation (Johnson et al., 2017)

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(1) Developing, guiding, and driving implementation (Johnson et al., 2017)

Background:

- *‘Attempts to span translational gaps and implement evidence-based practice into routine clinical practice often fail.’*
- **‘The nutritional care and growth of preterm infants managed in the NICU is an important example of the problem of translating evidence into practice.’**
- **‘Recommendations for nutrient intakes have been published, however there is evidence that these are not effectively integrated into clinical practice.’**

(1) Developing, guiding, and driving implementation (Johnson et al., 2017)

Hypotheses / study aims:

- (1) the implementation of an evidence-based **nutrition guideline** for preterm infants would **improve nutrient intakes and growth**, and;
- (2) that the **use of NPT to monitor and guide implementation** of the guideline would result in its **successful integration** into practice.

(1) Developing, guiding, and driving implementation (Johnson et al., 2017)

Components of intervention, informed by NPT:

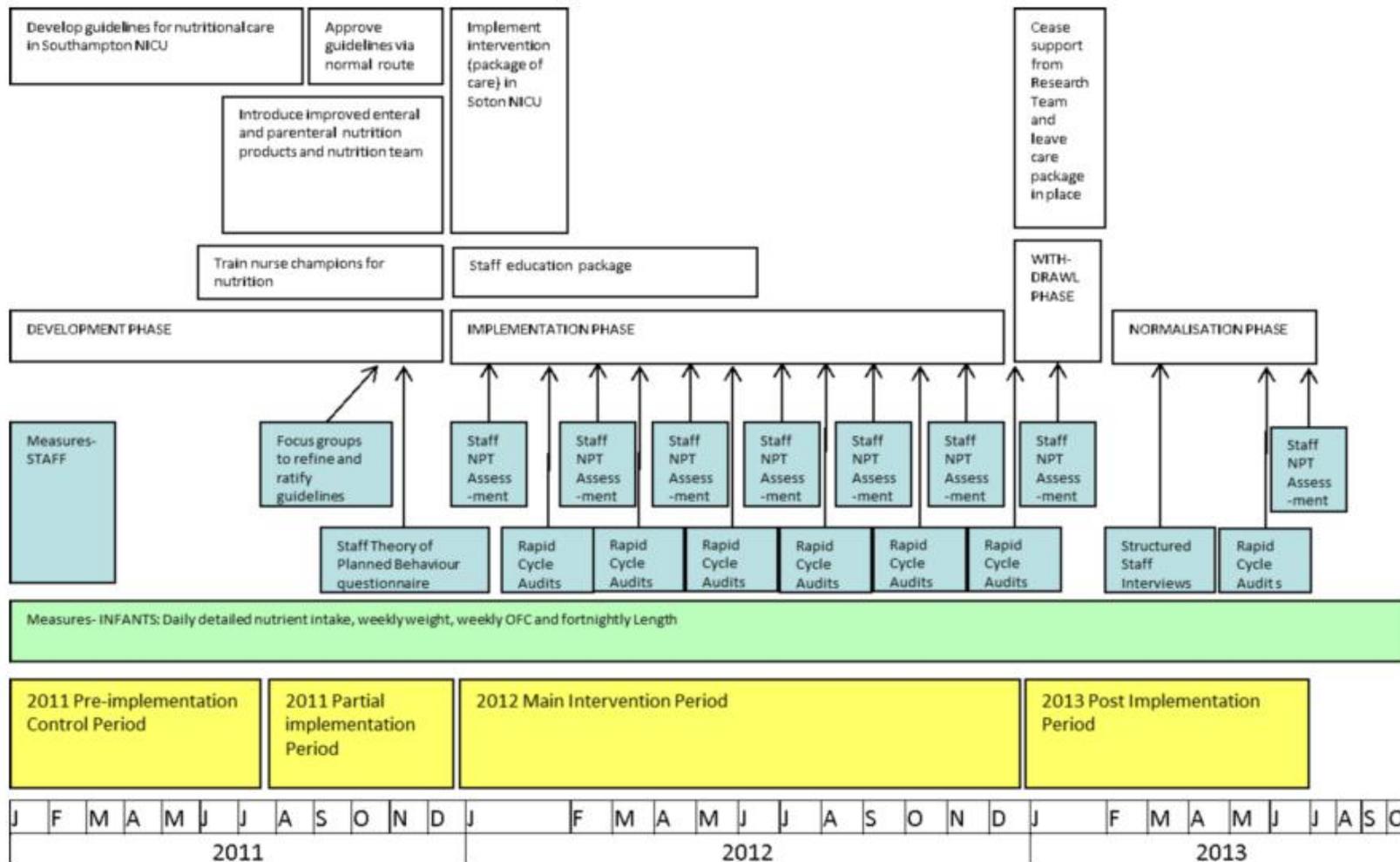
- A comprehensive **nutrition guideline** (COHERENCE & COGNITIVE PARTICIPATION)
- A **screening tool to identify nutritional risk**, linked to specific guideline pathways and nutrition review. (COHERENCE AND COGNITIVE PARTICIPATION)
- **Improved nutritional products:** stock parenteral nutrition (PN) solutions were revised to provide more nutrition in a smaller volume and new formula milks and breast milk fortifier introduced with higher nutritional content.

(1) Developing, guiding, and driving implementation (Johnson et al., 2017)

Components of intervention, informed by NPT:

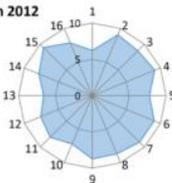
- **A multidisciplinary nutrition support team** (consultant neonatologist with an interest in nutrition, a neonatal dietitian, a neonatal pharmacist and nurse champions). (REFLEXIVE MONITORING)
- **Nurse champions** seconded 1 day in 5 to the nutrition team to improve their knowledge and skills in nutritional care, and 4 days in 5 working clinically, supporting their colleagues in the new ways of working.(REFLEXIVE MONITORING)
- **A weekly nutrition ward round** to review infants at the highest nutritional risk and provide additional management plans for nutrition. (REFLEXIVE MONITORING)

NPT in practice – three case studies

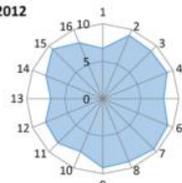


(1) Developing, guiding, and driving implementation (Johnson et al., 2017)

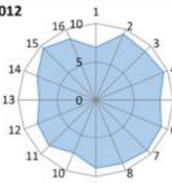
1. March 2012



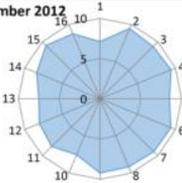
2. May 2012



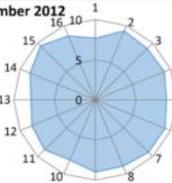
3. July 2012



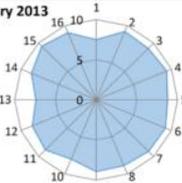
3. September 2012



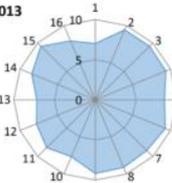
5. November 2012



6. January 2013



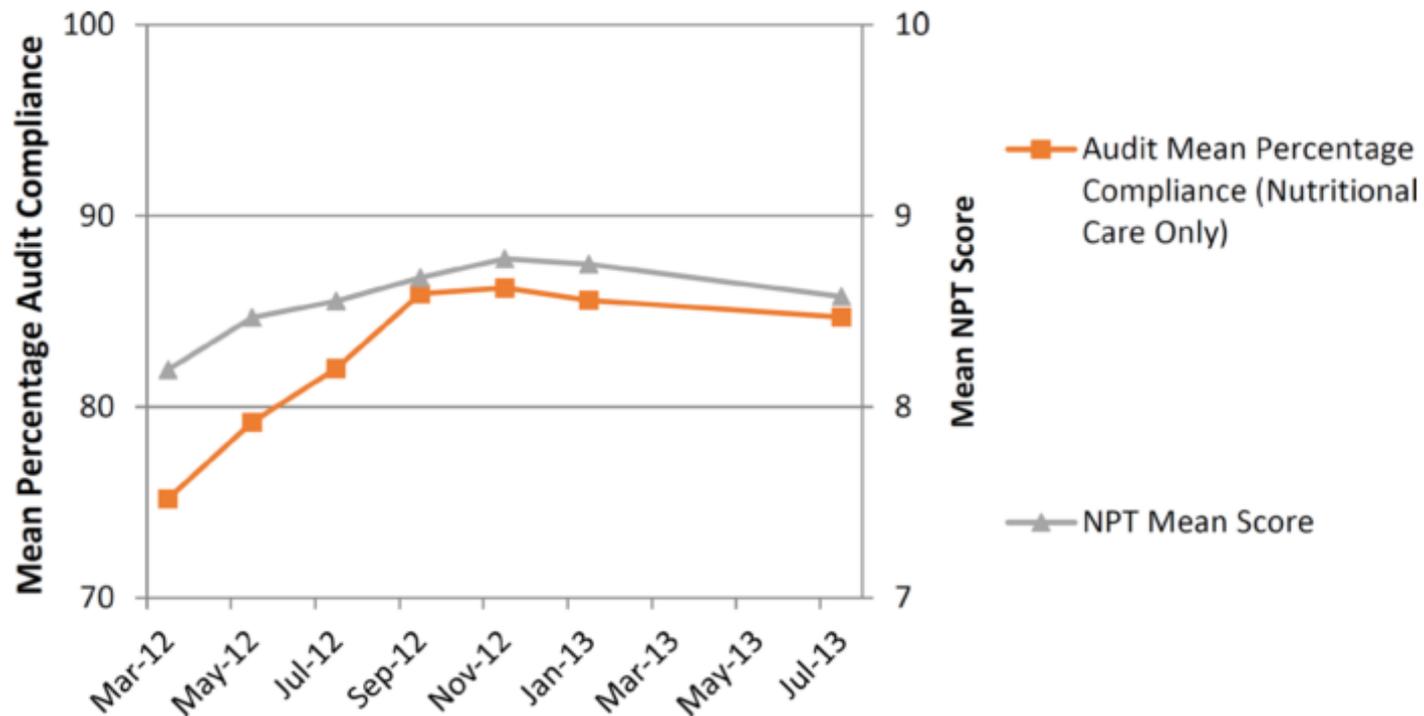
7. July 2013



Key:

- Items 1-4 = Coherence
- Items 5-8 = Cognitive Participation
- Items 9-12 = Collective Action
- Items 13-16 = Reflexive Monitoring

(2) Developing, guiding, and driving implementation (Johnson et al., 2017)



(2) Identifying barriers to implementation of a stroke carer training programme (Clarke et al., 2013)

RESEARCH

Open Access

Implementing a training intervention to support caregivers after stroke: a process evaluation examining the initiation and embedding of programme change

David James Clarke^{1*}, Mary Godfrey³, Rebecca Hawkins³, Euan Sadler², Geoffrey Harding⁵, Anne Forster¹, Christopher McKevitt², Josie Dickerson¹ and Amanda Farrin⁴

(2) Identifying barriers to implementation of a stroke carer training programme (Clarke et al., 2013)

Background:

- **London Stroke Carer Training Course (LSCTC)** had been **shown effective** in decreasing burden, anxiety, and depression for the caregiver, and in improving psychological outcomes for patients, and in reducing overall costs.
- **Training Caregivers After Stroke (TRACS)** – **adapted LSCTC** for pragmatic, cluster Randomised Controlled Trial (RCT); delivered through cascade training, senior MDT members attend and cascade to others.
- **LSCTC not replicated within any of the 18 stroke care units in the study** – process evaluation examines **why**.

(2) Identifying barriers to implementation of a stroke carer training programme (Clarke et al., 2013)

Study aims:

- to examine:
 - how **professionals were engaged** in the work of delivering training;
 - how they **reached and involved caregivers** for whom the intervention was most appropriate;
 - how did those on whom training was targeted **experience and respond** to it.

(2) Identifying barriers to implementation of a stroke carer training programme (Clarke et al., 2013)

Methods:

- **Observations of implementation** in stroke units.
- **Interviews** with MDT members (post-trial), patients and caregivers.
- **Documentary analysis** in therapy, nursing, and MDT records to identify caregiver training.
- **NPT** used as a **sensitising framework for data analysis**.

**(2) Identifying barriers to implementation of a stroke carer training programme
(Clarke et al., 2013)**

Results:

- **Disconnect at secondary training level** – between ‘change champions’ and their team.
 - **Primary training = 2-day workshop**
 - **Secondary training = mean 40 minutes**

(2) Identifying barriers to implementation of a stroke carer training programme (Clarke et al., 2013)

Results:

- **Differences in organisation of stroke units impedes coherence and cognitive participation:**
 - PTs, OTs, Trial Managers delivered most training; nurses on only 3 of 18 units.
 - AHPs work differently to nurses (off-unit, different hours) – meant many nurses did not engage and participate in LSCTC training.
 - No use of DVD/training manual.

(2) Identifying barriers to implementation of a stroke carer training programme (Clarke et al., 2013)

Results:

- **Aspects of the training were divided up by existing divisions of labour** (e.g. mobility issues for physios and OTs, medicines management with nurses).
 - **Means LSCTC delivery devolved to different role groups, no mechanism for monitoring overall MDT implementation of LSCTC programme.**
- **Assumptions about existing ways of working inhibit cognitive participation processes**– assumption of trial team and MDTs was that structured caregiver training was already in place to some degree, and that LSCTC implementation would therefore not require changes to existing practice (e.g. assessment of caregiver competence).

(2) Identifying barriers to implementation of a stroke carer training programme (Clarke et al., 2013)

Results:

- **Collective action differences between disciplines:**
 - Senior therapists most likely to understand requirements of intervention, indicated that working through competencies enhanced provision of training to caregivers by less experienced therapists.
 - Senior nurses believed that LSCTC was consistent with good practice, and that the competencies associated with nursing were already being implemented (neither observations nor documentary analysis supported this finding).
 - **Most junior nurses, healthcare assistants (HCAs), some junior therapists, and most junior doctors showed little or no knowledge of the intervention.**

(2) Identifying barriers to implementation of a stroke carer training programme (Clarke et al., 2013)

Limitation of NPT:

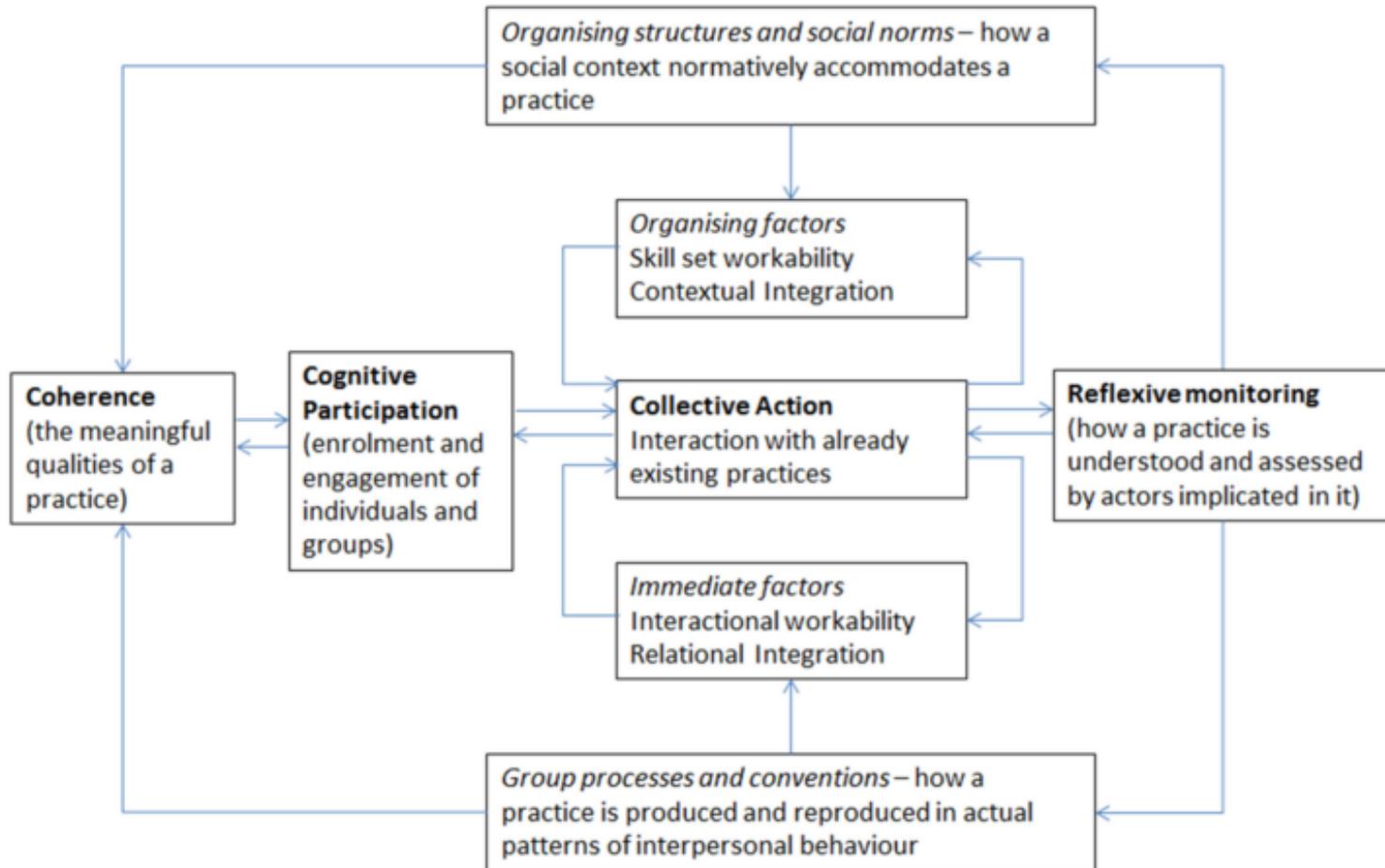
- NPT useful for identifying vulnerable features of implementation processes in respect of the work involved in embedding complex interventions, less so for contextual features (emphasis on agency).

Identifying barriers to implementation of a stroke carer training programme (Clarke et al., 2013)

Contextual factors:

- **Changes in the stroke care field (national)** - recruitment to the TRACS trial began in February 2008, soon after the National Stroke Strategy (NSS).
- **Other local interventions and projects** - in some intervention units, LSCTC implementation competed with other stroke research or service improvement projects for MDT members', patients', and caregivers' commitment and participation.
- **General pressures** - all hospitals were working toward increasing the number of stroke survivors spending part or all of their inpatient stays on a stroke unit, and most were planning or introducing thrombolysis services.
- **Local pressures** - the introduction of early supported discharge (ESD) schemes or service reconfigurations requiring changes in staff location or roles

NPT in practice – three case studies



Accounting for context in NPT (aside):

Table 1 Development of Normalisation Process Theory

Theoretical focus	Theoretical content	Research questions	Empirical focus
1 Users' interactions with objects in implementation processes (2006)	Analysis of mechanisms of collective action (interactional workability, relational integration, skill set workability, contextual integration) [22, 23].	What factors promote or inhibit the routine incorporation of complex interventions in practice? How do they affect implementation processes and outcomes?	How complex interventions are operationalised by their users.
2 Agency within implementation processes (2009)	Analysis of mechanisms of agents' contributions to implementation processes (sense-making, cognitive participation, collective action, reflexive monitoring) [24, 25].	What factors promote or inhibit the implementation, embedding and integration of practices? How do they affect implementation processes and outcomes?	The work people do when they implement a new technique, technology or organisational intervention.
3 Resource mobilisation in implementation processes (2013)	Analysis of social structural resources (roles, rules, norms and material resources) and social cognitive resources (potential and commitment) available to agents as they invest in implementation [26, 27].	What factors promote or inhibit the mobilisation of structural and cognitive resources for implementation? How do they affect implementation processes and outcomes?	How implementation processes work over time.
4 Implementation as adaptive self-organising in complex systems (this paper)	Analysis of properties of interventions as events in systems (plasticity and elasticity) and adaptive responses to emergence (normative and relational restructuring).	What factors promote or inhibit adaptation and self-organisation in complex systems? How do they affect implementation processes and outcomes?	How implementation processes differ between settings.



Implementing Nutrition Screening in Community Care for Older People



(3) INSCCOPE – Implementing Nutrition Screening in Community Care for Older People: (Bracher, Murphy, Steward, Wallis & May, ongoing)

Background:

- **Malnutrition remains under-detected, under-treated, and often overlooked by those working with older people in primary care in the UK.**
- **A new procedure for screening and treatment of malnutrition is currently being implemented by Southern Health NHS Foundation Trust, incorporating a programme of training for staff working within Integrated Community Teams (ICTs) and Older People’s Mental Health (OPMH) teams.**
- **INSCCOPE explores factors that may promote or inhibit its implementation and longer term embedding in routine care, with the aim of optimising sustainability and scalability.**

(3) INSCCOPE – Implementing Nutrition Screening in Community Care for Older People: (Bracher, Murphy, Steward, Wallis & May, ongoing)

Study aims:

- **Evaluate implementation** of a new procedure and associated training for screening and treatment of malnutrition, developed specifically for community settings.
- **Inform further development and rollout** across Southern Health NHS Foundation Trust.

(3) INSCCOPE – Implementing Nutrition Screening in Community Care for Older People: (Bracher, Murphy, Steward, Wallis & May, ongoing)

Methods:

- **Participants:**
 - Nursing and allied health professionals (AHPs) working within Integrated Community (ICTs) and Older People’s Mental Health (OPMH) Teams (n=73)
- **Data collection (at all observation points):**
 - 23-item questionnaire based on NPT (NoMad) (completed by all participants)
 - Semi-structured telephone interview exploring survey responses (completed by a sub-sample of respondents)

(3) INSCCOPE – Implementing Nutrition Screening in Community Care for Older People: (Bracher, Murphy, Steward, Wallis & May, ongoing)

Methods:

- **Observation points:**
 - Baseline – prior to implementation of the training
 - 2 months following implementation of the training
 - 8 months following implementation of the training

(3) INSCCOPE – Implementing Nutrition Screening in Community Care for Older People: (Bracher, Murphy, Steward, Wallis & May, ongoing)

Methods:

- **Data analysis:**
 - Descriptive statistical reporting of questionnaire results.
 - Deductive thematic analysis of interview data, informed by Normalization Process Theory (May & Finch, 2007)

(3) INSCCOPE – Implementing Nutrition Screening in Community Care for Older People: (Bracher, Murphy, Steward, Wallis & May, ongoing)

Methods:

Construct	Construct description	Component	Topic of investigation	INSCCOPE ICT Research Questions v3 (T1)
Coherence (1)	<i>The sense-making work that people do individually and collectively when they are faced with the problem of operationalizing some set of practices.</i>	Differentiation	To understand how agents understand that a set of practices and their objects are different from each other.	<i>Do ICT staff see the new procedure as different from existing models of working, and if so how?</i>
		Communal specification	Sense-making relies on people working together to build a shared understanding of the aims, objectives, and expected benefits of a set of practices	<i>How do staff understand the responsibilities of their team with respect to screening and treatment of malnutrition?</i>
		Individual specification	Sense-making has an individual component too. Here participants in coherence work need to do things that will help them understand their specific tasks and responsibilities around a set of	<i>How do ICT staff understand the work associated with nutritional screening and care, as relates to their individual practice?</i>
		Internalisation	Sense-making involves people in work that is about understanding the value, benefits and importance of a set of practices.	<i>How do ICT staff assess the value of nutrition screening and treatment practices?</i>

(3) INSCCOPE – Implementing Nutrition Screening in Community Care for Older People: (Bracher, Murphy, Steward, Wallis & May, ongoing)

Methods:

Statements	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Q8—There are key people who drive screening and treatment for malnutrition forward and get others involved.					
Q9—I believe that participating in screening and treatment for malnutrition is a legitimate part of my role.					
Q10—I'm open to working with colleagues in new ways to use screening and treatment for malnutrition.					
Q11—I will continue to support screening and treatment for malnutrition.					

Methods:

Topic area	Focus points	Example questions
Cognitive Participation (2)	2.1 – Initiation - <i>Which staff (if any) do participants identify as key in driving forward screening and treatment for malnutrition?</i>	<p>[Q8 NoMaD FOLLOW] When you completed your recent questionnaire, you answered that you [strongly agreed / agreed / neither agreed nor disagreed / disagreed / strongly disagreed] with the statement 'There are key people who drive screening and treatment for malnutrition forward and get others involved'</p> <p><IF POSITIVE RESPONSE> Who has responsibility within your team for ensuring that nutrition screening and treatment is carried out?</p> <p><IF NEGATIVE RESPONSE> Are you unsure as to who is responsible:</p> <ul style="list-style-type: none"> • within your team? • in relation to your work specifically (i.e. as part of your line management?) • in relation to the wider trust?

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Group activity: applying NPT to
health services research and
development (Session 3)

- A group of physiotherapists want to implement an intervention to increase levels of exercise and mobility in older people who are in contact with community teams.
- They read about the intervention in a peer-reviewed journal, and think that it will be useful for developing and embedding good habits for enhancing mobility and activity.
- Previous evidence from a single centre randomised controlled trial suggests that this works. The intervention involves application of a protocol (Elder Mobility and Physical Activity Protocol - EMPAP) that has shown positive outcomes in self-reported quality of life, and a range of physical health outcome measures (reduced blood pressure, increased appetite etc.) vs. an active control group who only received leaflets on the benefits of increased mobility and activity.

- The intervention involves establishing a bespoke programme for increasing mobility and activity through small changes in daily habits (e.g. increasing walking time by getting off of the bus earlier, scheduling resistance activity throughout the day using resistance bands provided to participants).
- The protocol is initiated through a structured 5 minute conversation with a trained health visitor, who uses an algorithm to develop a schedule with the patient, based on their health status and preferences.
- Adherence to the intervention is assessed through a step counting measures, and self-recording of activities completed. These records are then provided to a member of the community team when they visit, and the programme reviewed monthly using the protocol.

- The physiotherapy team will collect and analyse data from outcome measures (so we don't need to worry about these). However, they also want to explore barriers and facilitators of implementation.
- As a group, use the NPT framework to derive appropriate research questions, and suggest methods for investigating these.
- You may wish to ask further questions of the seminar facilitator to clarify understanding.