INDIVIDUAL- AND COLLECTIVE-LEVEL INFLUENCES ON IMPLEMENTATION

PER NILSEN
24 JANUARY 2018
Linköping, population 150,000 (fifth largest city in Sweden)

Population of Sweden: approx. 10m
Determinants of implementation outcomes

Individual-level influences

Collective-level influences

Wrapping up
DETERMINANTS OF IMPLEMENTATION OUTCOMES
A synthesis of frameworks that identify determinants of implementation outcomes

Implementation "object"
(i.e. the practice being implemented)

Based on:
- Diffusion Theory (Rogers, 2003)
- PARIHS (Kitson et al., 1998)
- Fixsen et al. (2005)
- Greenhalgh et al. (2005)
- Grol et al. (2005)
- Nutley et al. (2007)
- Durlak & DuPre (2008)
- CFIR (Damschroder et al., 2009)

Adopters/users/practitioners

Context

Strategies (and actors) to support the implementation

Outcomes
An ecological model of influences on implementation
Implementing evidence-based palliative care in nursing homes

Nilsen et al. (2018)

Implementation "object": provision of evidence-based palliative care in nursing homes

Using the framework
Implementing evidence-based palliative care in nursing homes

Nilsen et al. (2018)

Implementation "object": provision of evidence-based palliative care in nursing homes

- Few perceived relative advantages compared to routine practice; perceived complexity to talk about death and dying.

- Fear of facing dying persons; lack of motivation to learn palliative care principles; lack of competence and confidence concerning palliative care

- Resource restrictions; time restrictions, lack of planning; negative work attitudes (work climate); limited manager decisional latitude; lack of palliative care culture in nursing homes

- Adopters/users/practitioners

- Course in palliative care principles for nursing home staff and managers

- Strategies (and actors) to support the implementation

Palliative care: intended to improve the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and treatment of pain and other problems, physical, psychosocial and spiritual (WHO)
INDIVIDUAL-LEVEL INFLUENCES ON IMPLEMENTATION
Psychological theories are commonly used to analyze individual-level influences on implementation:

- Behaviorism
- Cognitivism
- Habit theory
Early 1900s-1950s: Learning (= behaviour change) occurs as responses to stimuli

**Key principle:** Rewarded behaviours are reinforced and repeated, and punished behaviours are avoided (the Reinforcement principle).

**Implication:** Use financial incentives
1950s-60s: partially a reaction to earlier focus on observable behaviours

“...focuses on individual cognitions* as processes which intervene between observable stimuli and responses in real-world situations” (Fiske & Taylor, 1991).

*the mental action of acquiring knowledge and understanding through thought, experience and the senses.
Sometimes it’s assumed that…

K → A → B
More aspects than $K$ and $A$ determine $B$ (besides, knowledge is not necessarily motivating)
Beliefs about the possible consequences of one’s actions

Social Cognitive Theory

Outcome expectations:
- Physical
- Social
- Self-evaluative

Self-efficacy

Goals

Behaviour

Sociostructural factors
- Facilitators
- Impediments

Perceived barriers and facilitators that reside in the living conditions, health systems, political, economic or environmental systems

Beliefs in one’s capabilities to perform a specific behaviour required to attain a desired outcome

Figure 4.1 An illustration of social cognitive theory (see Bandura 2000b)
**Key principle:** Behaviour is determined by motivation, attitudes, self-efficacy, etc. concerning the behaviour

**Implication:** Influence attitudes, beliefs, motivation, etc. by means of information, education, skills training, etc.
Habit theory

In response to findings:

Knowledge, positive attitudes and strong motivation, etc. do not necessarily convert into behaviour/practice change

Approx. 50-60% of the variation in behaviours are unexplained by the variables in the social-cognitive theories!

Many social-cognitive theories assume that behaviours are a result of a careful weighing of pros and cons – realistic for repeated behaviours?

“…approximately 45% of everyday behaviours tend to be repeated in the same location every day” (Quinn & Wood, 2005; Wood et al., 2002)
New Year's Resolutions
for 2009

1. Lose weight again
2. Get fit next year and cigarettes, drink
3. Give up alcohol and find job
4. Stand up to boss
5. Be nicer to my
6. Sort out junk in shed
**Habits** are “automatic responses to everyday contexts, learned through repeated performance in those contexts” – Gardner (2012, p.1)

Common contextual cues/triggers

- Place
- Time
- Emotional state
- Other people
- Just executed action
Key principle: When a behaviour is repeated in the same context, behaviour control is gradually transferred (“outsourced”) to contextual cues → the behaviour becomes habitual
Learning a task – the example of driving

30 actions involved in driving a car

Automatic, habitual actions

Conscious, deliberate actions

Time
Cf. Novice-to-expert theory (Benner)
Cf. System 1 and System 2 (Kahneman)

**System 1**
- Fast
- Unconscious
- Automatic
- Everyday Decisions
- Error prone

**System 2**
- Slow
- Conscious
- Effortful
- Complex Decisions
- Reliable
Implications

Breaking habits: change or modify the context to disrupt behaviours, using triggers/cues
To some extent, the field has emerged from recognizing the habitual nature of some health care practices...

"EBM de-emphasizes intuition, unsystematic experience [habits; System 1]... as sufficient grounds for clinical decision-making" (Evidence-Based Practice Working Group, 1992; p. 2420).

Achieving more "cognitive" behaviours [System 2]:
COLLECTIVE-LEVEL INFLUENCES ON IMPLEMENTATION
Increased recognition of influences beyond individuals

“Much implementation research has failed to fully recognize the influence and importance of health care organizational factors.” (Yano, 2008)

“…while these works [by Michie et al.] have made a substantial contribution, they focus primarily, or exclusively, on psychological processes, and hence address the most proximal surface influences on behaviour.” (Moore & Evans, 2017)
Context in implementation

Lack of a “context theory” – in practice: context is “all other influences” on implementation outcomes, i.e. influences that are not attributable to (1) the implementation “object”, (2) strategy used to support the implementation or (3) the individual adopters-users-practitioners.

Most commonly understood as influences that are external to and/or “above” (i.e. a higher aggregation level than) the individual, e.g. a team, professional group, department or organization (i.e. collective level)
Analysis of 17 determinant frameworks, with regard to how they define/view context
(work-in-progress, Nilsen & Bernhardsson)

Few provide a definition of the concept of context

Instead, context is defined “indirectly” by a number of components that together comprise the context

Common context components:

✓ Organizational structure
✓ Organizational readiness to change
✓ Resources
✓ Culture, climate
✓ Leadership

Let’s look closer at culture and climate
Culture

Typical or expected behaviours (unwritten rules)

Beliefs or ideals about what are good/bad and desirable/undesirable behaviours, attitudes, etc.

Shared norms, values, assumptions and beliefs which influence the thinking and behaviours among members of a social group (family, work unit, profession, community, organisation, etc.) (Bang, 1999)

Schein (1992) emphasizes the importance of underlying assumptions and beliefs, many of which can be unconscious
"Culture eats strategy for breakfast."
(Peter Drucker, management guru)
“Culture is the **most stable and significant force** that shapes how the professions think, behave and approach their work.”

(Grissinger, 2014)

**Professional cultures in health care**

Studies have shown that professional loyalties may be stronger than those to the organization, which may impede change initiatives and implementation endeavours (Hillman, 1991; Hudson, 2002; Sutker, 2008; Mittman, 2012; Eriksson et al., 2016).

Ferlie et al. (2005) and Fitzgerald and Dopson (2005) identified inter-professional boundaries between different professional groups that inhibited spread of new practices.
Key characteristics of culture
Groysberg et al., 2018

**Shared**
Culture is a group phenomenon. It cannot exist solely within a single person, nor is it simply the average of individual characteristics.

**Pervasive**
Culture can direct the thoughts and actions of group members over the long term. It permeates multiple levels and applies very broadly in an organization.

**Implicit**
Culture has a subliminal nature; people are hardwired to recognize and respond to it instinctively. It acts as a kind of silent language.
Culture is usually seen as being stable, deeply rooted, having evolved over time out of shared experience; climate represents more superficial manifestations of culture (Weaver et al., 2013).

Cox and Flin (1998) have likened culture to an organization’s personality and climate to its mood, which is easier to influence and change.
Leadership ↔ culture/climate

A process of **social influence**, by which an individual influences another person, group, work unit, organization, etc. to attain certain goals.

A review of 17 studies (Reichenpfader, Nilsen, Carlfjord, 2016): “Managers” and “leaders” are rarely differentiated in implementation research.

### Managers vs. Leaders

<table>
<thead>
<tr>
<th>Managers</th>
<th>Leaders</th>
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<tbody>
<tr>
<td>Focus on things</td>
<td>Focus on people</td>
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<tr>
<td>Do things right</td>
<td>Do the right things</td>
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<tr>
<td>Plan</td>
<td>Influence</td>
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<td>Organize</td>
<td>Motivate</td>
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<tr>
<td>Direct</td>
<td>Build</td>
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<tr>
<td>Control</td>
<td>Shape entities</td>
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<tr>
<td>Follows the rules</td>
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Leadership ↔ Culture

Schein: Leaders can impose their own values, norms and assumptions on others, using a number of embedding mechanisms, e.g. what leaders pay attention to (and measure), allocation of resources, role modelling and reaction to critical incidents and crises.
WRAPPING UP
How are individual- and collective-level influences on implementation reflected in the widely used Theoretical Domains Framework?
Theoretical Domains Framework

Cane 2012

- Knowledge
- Skills
- Social/professional role and identity
- Beliefs about capabilities
- Optimism
- Beliefs about consequences
- Reinforcement

Behaviorism; Cognitivism; Habit theory; Context
A simple model to consider both individual and collective (culture) influences
Individuals’ behaviours are determined by a strong culture.

Individuals’ behaviours are automatically enacted (i.e. habitual).

Individuals’ behaviours are deliberate, conscious (i.e. “cognitive”).

Individual autonomy ("weak" culture).
There is "cultural awareness" (of what is beneath the surface), but practice is still determined by the shared group norms, values, etc. (e.g. in a profession)

Shared **conscious** norms, values, perceptions and assumptions determine individuals’ behaviours

Individuals’ behaviours are deliberate, conscious (i.e. "cognitive")

Not as common as we believe? Perhaps overly emphasized (focus on individuals, courses, training, etc.)?

Shared **unconscious** norms, values, perceptions and assumptions determine individuals’ behaviours ("collective habits")

Individuals’ behaviours are automatic, unconscious (i.e. **habitual**)

Changing habitual practice requires other strategies than when attempting to influence "cognitively" guided behaviours!

Very difficult to change current practice! The norms, values, etc. are shared and deeply embedded in the taken-for-granted, habitual patterns of everyday practice
Knowledge accumulation in implementation science

Early implementation research: ”an expensive version of trial-and-error” (Eccles, 2005)

Increased emphasis on using psychological theories, ”synthesized” in Theoretical Domains Framework (Michie et al., 2005; Cane et al., 2012).

Improved understanding of key contextual influences, including culture, climate and leadership; increased use of organizational theory
The social sciences are often fragmented into competing theories: psychology, sociology, economics all have many different schools of thought.

Balietti et al. (2015) urge social scientists to break free from their schools of thought and seek out discussion and disagreement: “...at the heart of the mechanisms driving scientific progress we find social interactions and peer disagreement. In fact, progress is limited if scientists are open to influence only by peers with very similar views.”