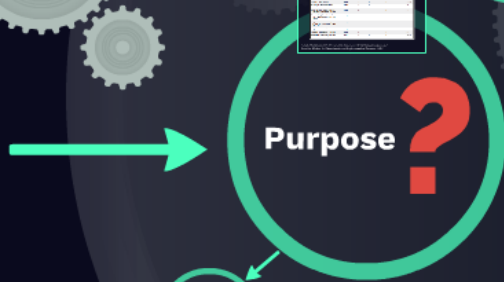
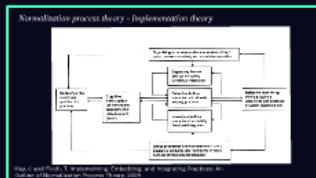


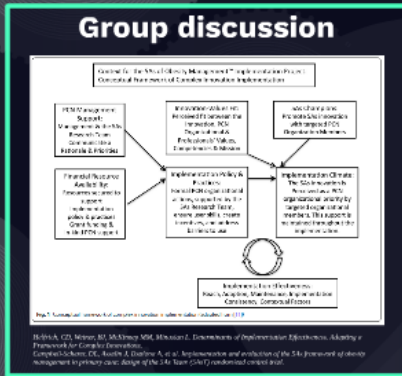
Models and frameworks: Grounding implementation and dissemination research in theoretical approaches

Denise Campbell-Scherer MD, PhD and Thea Luig PhD
University of Alberta



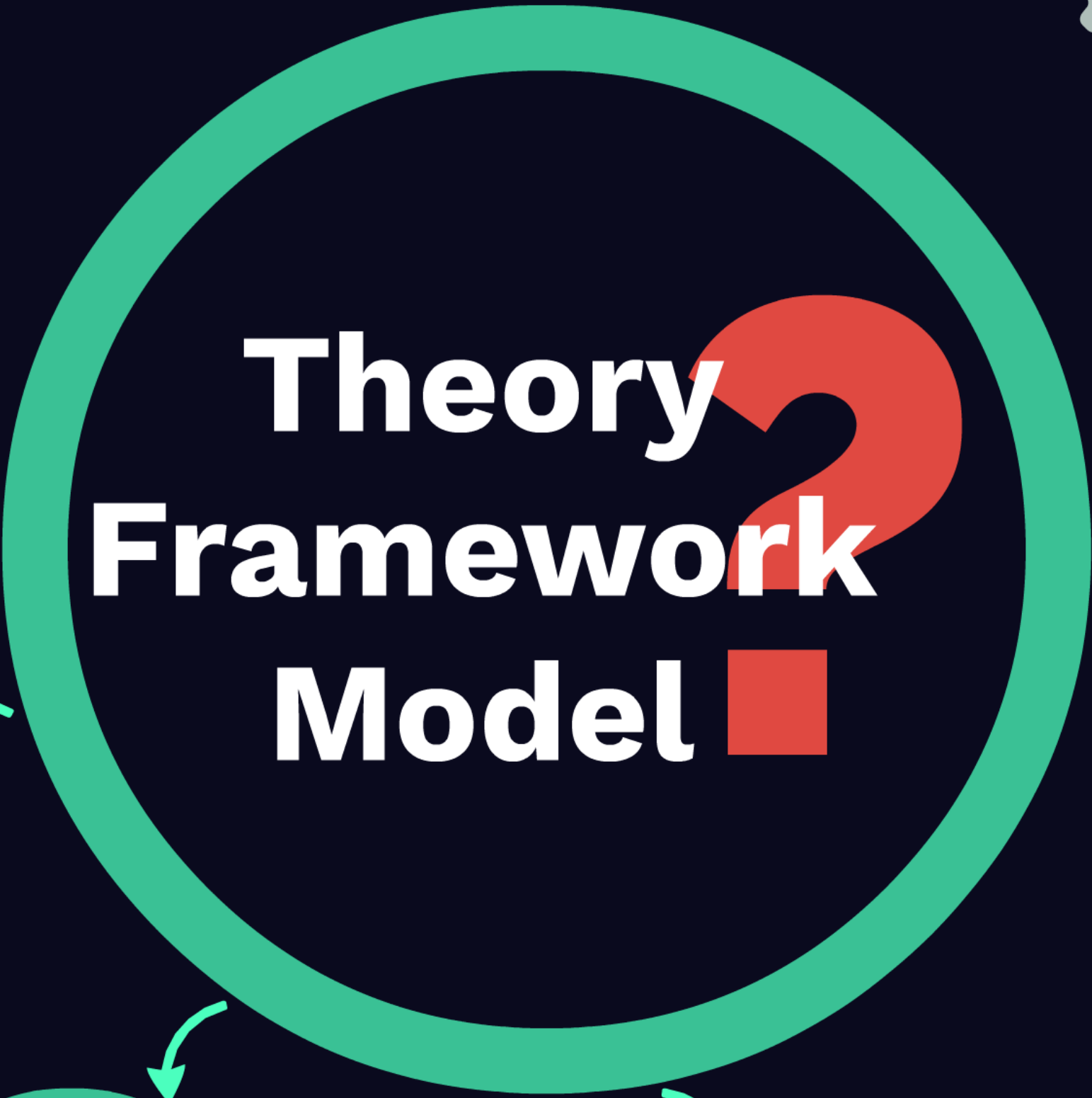
RE-AIM Glasgow Health Education Research 2006 21(5): 688

Reach into the target population
Effectiveness of the intervention
Adoption by target settings
Implementation including consistency and cost of delivery
Maintenance of intervention effects over time



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**Theory
Framework
Model**

The image features a large teal circle on a dark blue background. Inside the circle, the words "Theory", "Framework", and "Model" are stacked vertically in a bold, white, sans-serif font. A large red question mark is positioned behind the word "Framework", and a red square is placed to the right of the word "Model". The background also includes a grey gear-like shape in the top right corner and several teal curved arrows pointing towards the central circle.



Theories ...

... explain cause-and-effect relationships

- *Grand theories*
- *Mid-range theories*
- *Lower-level theories*

Frameworks

*... link descriptive concepts
or variables that account for
phenomena into a structure
that can serve to measure
and evaluate*

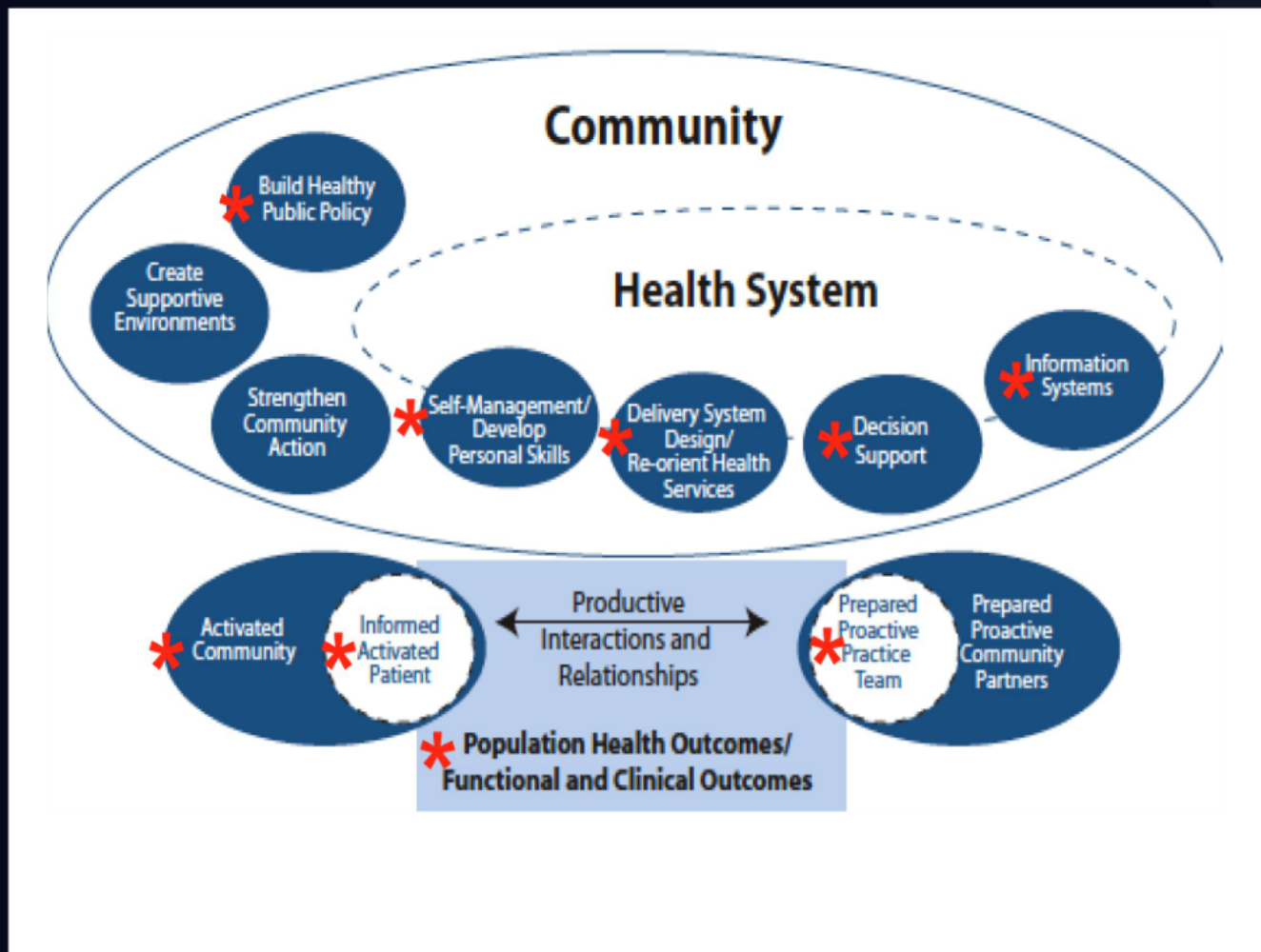
Models

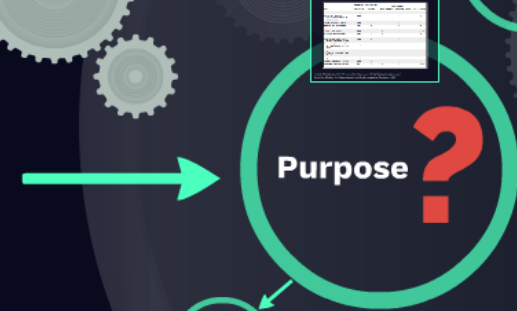
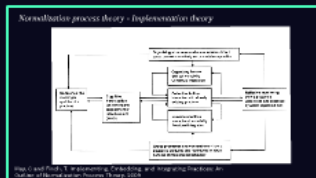
Simplified representation of phenomena. In contrast to theories, models are descriptive and have a narrowly defined scope.

Example: Chronic Care Model

The Expanded Chronic Care Model

Barr VJ, et al. Hosp Q. 2003; 7(1):73-82.





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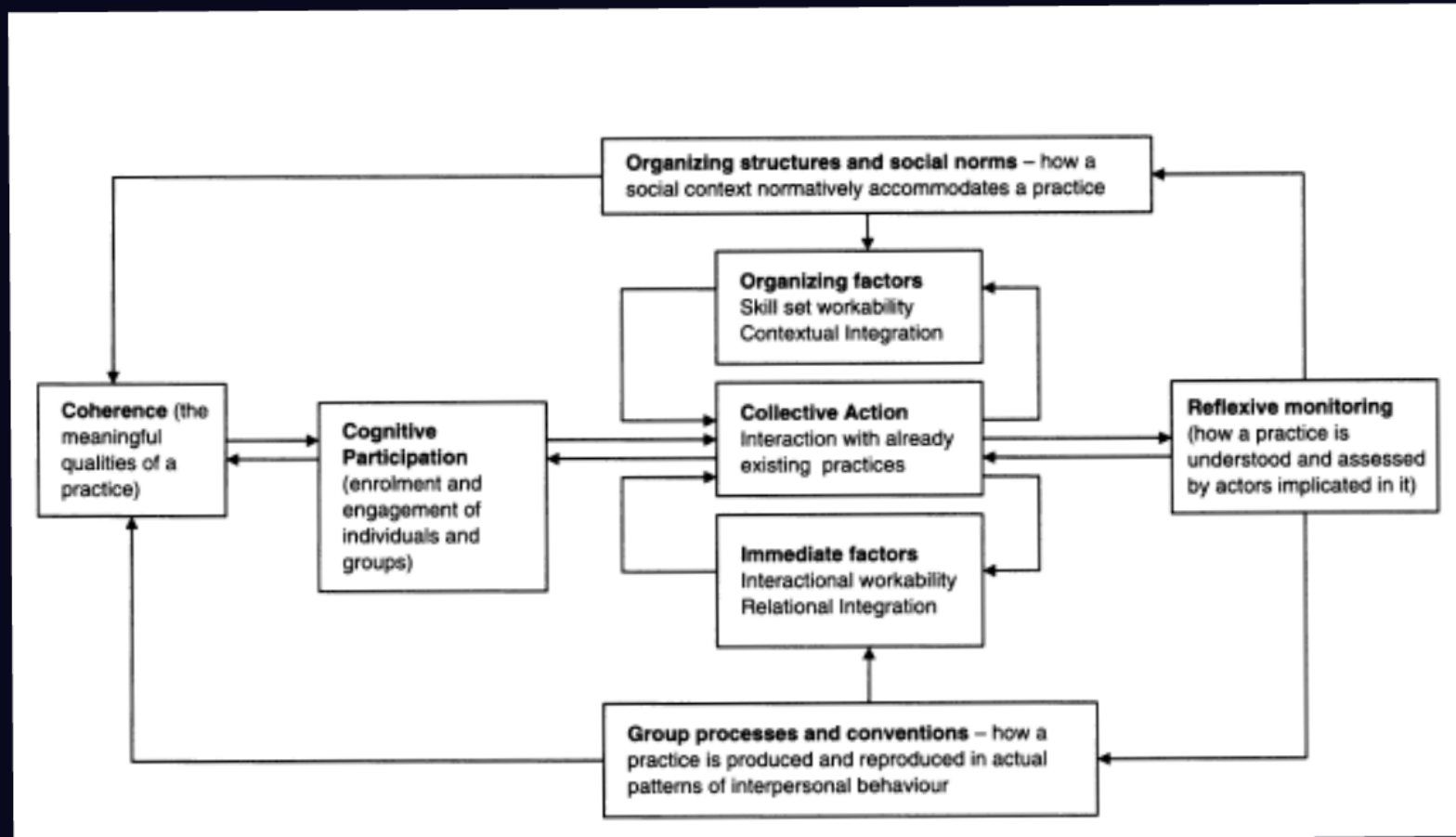
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Normalization process theory - Implementation theory



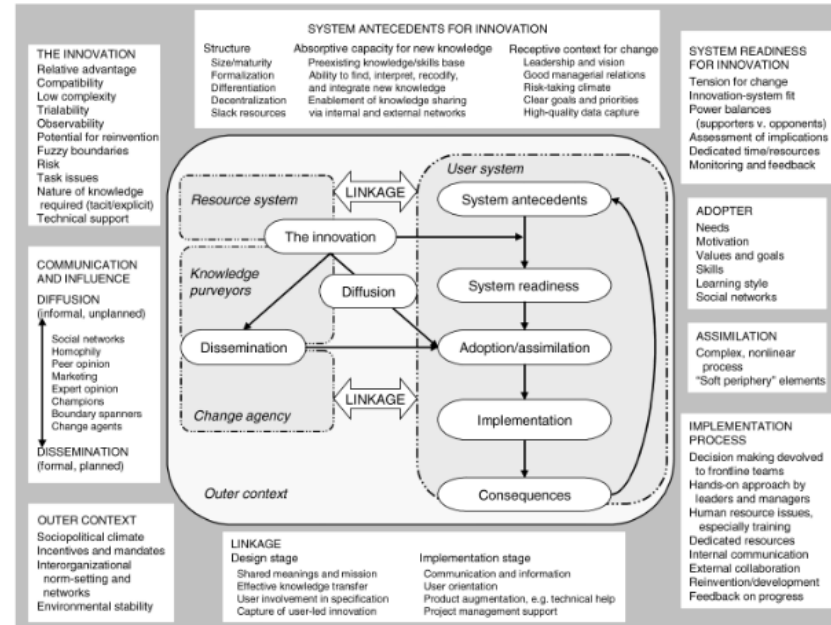
May, C and Finch, T. Implementing, Embedding, and Integrating Practices: An Outline of Normalization Process Theory. 2009

Frameworks

*... link descriptive concepts
or variables that account for
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and evaluate*

Greenhalgh T, Robert G, MacFarlane F, Bate P. Conceptual Model for the Diffusion of Innovations in Service Organizations. 2004.

Diffusion of Innovations: Implementation and Evaluation of shared decision-making tools



Milbank Quarterly

Volume 82, Issue 4, pages 581-629, 9 DEC 2004 DOI: 10.1111/j.0887-378X.2004.00325.x
<http://onlinelibrary.wiley.com/doi/10.1111/j.0887-378X.2004.00325.x/full#3>

Transfer Development	Dorly	3	x	x	x	x	25, 26
Streams of Policy Process	Dorly	3	x	x	x	x	27
A Conceptual Model of Knowledge Utilization	Dorly	3					28
Conceptual Framework for Research Knowledge Transfer and Utilization	Dorly	3					29, 30
Conceptualizing Dissemination Research and Activity: Canadian Heart Health Institute	Dorly	3					31
Policy Framework for Increasing Diffusion of Evidence-Based Physical Activity Interventions	Dorly	3	x	x	x	x	32
Blueprint for Dissemination	Dorly	4					33
Blueprint for Dissemination	Dorly	4					33
Framework for Knowledge Translation	Dorly	5	x	x	x	x	34, 35
A Framework for Analyzing Adoption of Complex Health Innovations	D > 1	2	x	x	x	x	34, 35

Tabak RG, Khoong EC, Chabers DA, Brownson RC. Bridging Research and Practice. Models for Dissemination and Implementation Research. 2012.

Purpose



Interventions



simple

complex

*Example for interventions aiming to
change behaviors:*

*Theoretical Domains Framework
33 behaviour change theories
128 constructs sorted into
14 domains*

**Conceptual Implementation Framework for 5As of Obesity Management:
Theoretical Domains Framework for Behaviour Change for the Provider**

Environmental Context & Resources:

See Conceptual Framework of Complex Innovation Implementation

Knowledge:

5As Toolkit for Obesity Management, The PCN task environment, Background Knowledge

Skills:

Development Competence Ability Interpersonal skills Practice Skill Assessment

Reinforcement

Intentions:

Stability (organization, provider) Stages of Change

Goals:

Goals (distal, proximal), Target setting, Goal Priority, Goals (autonomous/ controlled), Action Planning, Implementation Intention

Social / Professional Role & Identity:

Professional confidence, Group identity, Leadership, Organizational Commitment

Belief about Consequences

Social Influences:

Social pressure, social & group norms, group conformity, Social supports, Intergroup conflict, Power, Group Identity, Alienation, Modeling

Optimism

Emotion:

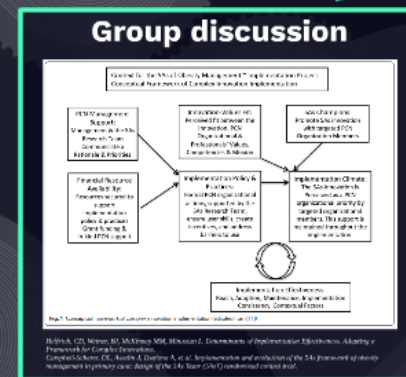
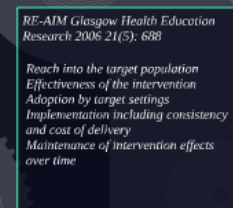
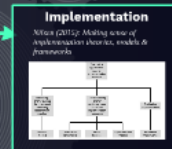
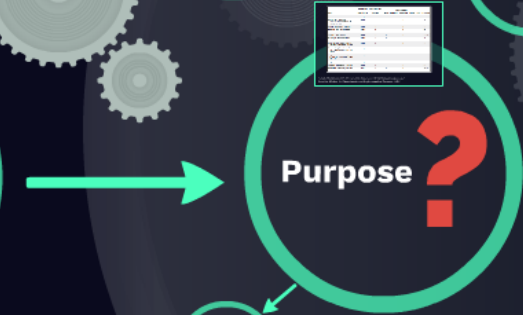
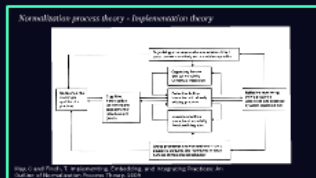
+/- affect Burn-out Fear, Anxiety

Belief about Capabilities:

Self-confidence, self-efficacy, perceived competence, perceived behavioural control, empowerment, professional confidence

Behavioural regulation:
Self-monitoring

Memory, Attention & Decision Processes



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Model	Dissemination and/or Implementation	Construct flexibility: broad to operational	Socioecologic Level					References
			System	Community	Organization	Individual	Policy	
Diffusion of Innovation	D-only	1		x	x	x	21	
RAND Model of Persuasive Communication and Diffusion of Medical Innovation	D-only	1		x	x	x	22	
Effective Dissemination Strategies	D-only	2		x	x	x	23	
Model for Locally Based Research Transfer Development	D-only	2		x	x		24	
Streams of Policy Process	D-only	2	x	x	x		x	25, 26
A Conceptual Model of Knowledge Utilization	D-only	3	x	x			x	27
Conceptual Framework for Research Knowledge Transfer and Utilization	D-only	3			x			28
Conceptualizing Dissemination Research and Activity: Canadian Heart Health Initiative	D-only	3		x	x			29, 30
Policy Framework for Increasing Diffusion of Evidence-Based Physical Activity Interventions	D-only	3	x	x	x		x	31
Blueprint for Dissemination	D-only	4		x	x			32
Framework for Knowledge Translation	D-only	5		x	x	x		33
A Framework for Analyzing Adoption of Complex Health Innovations	D > I	2	x	x	x	x		34, 35

Tabak RG, Khoong EC, Chabers DA, Brownson RC. Bridging Research and Practice. Models for Dissemination and Implementation Research. 2012.



**Construct
flexibility**



**Socioecologic
framework level:**

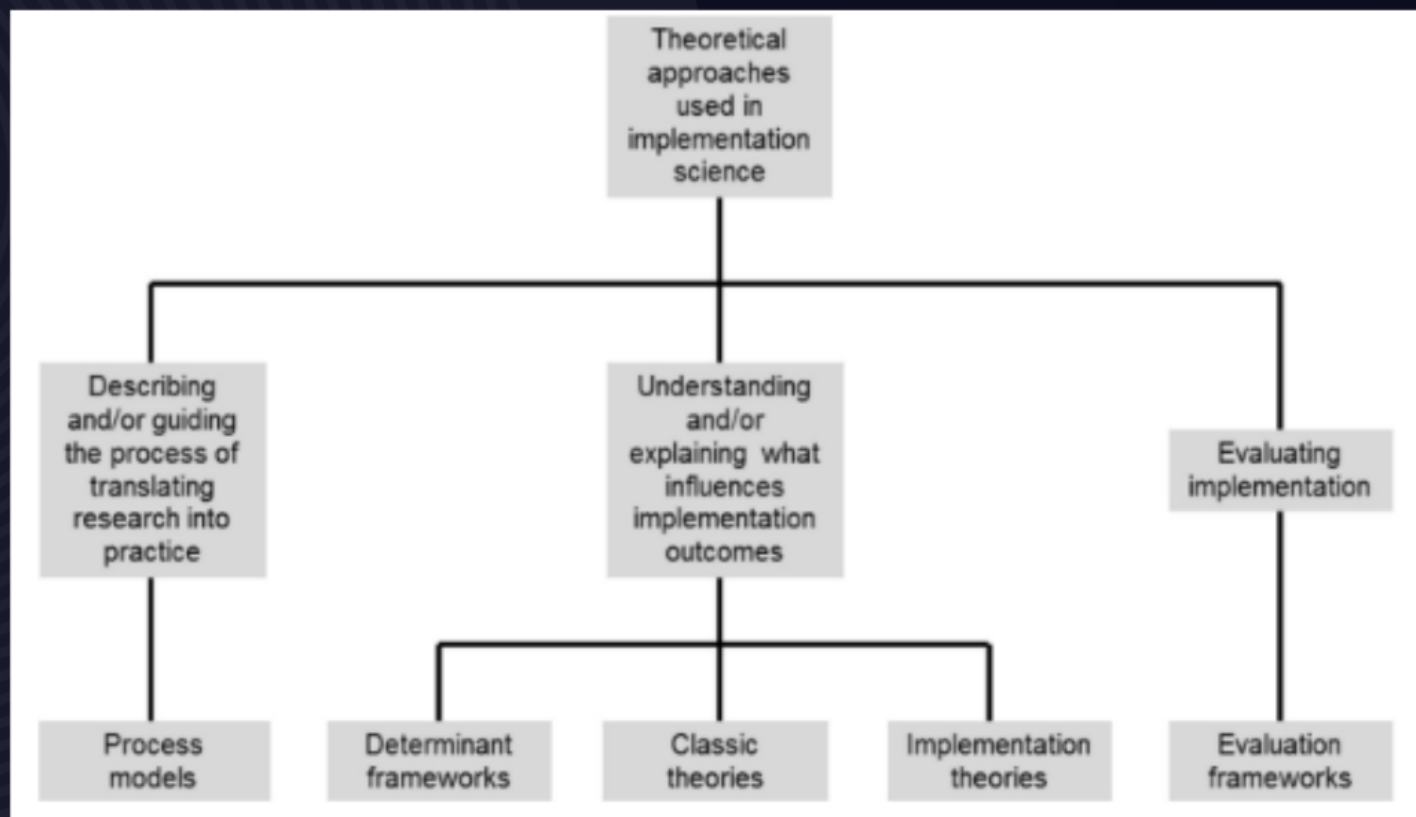
*System, community,
organization, individual*



**Implementation
and/or
Dissemination**

Implementation

Nilsen (2015): Making sense of implementation theories, models & frameworks



*RE-AIM Glasgow Health Education
Research 2006 21(5): 688*

Reach into the target population

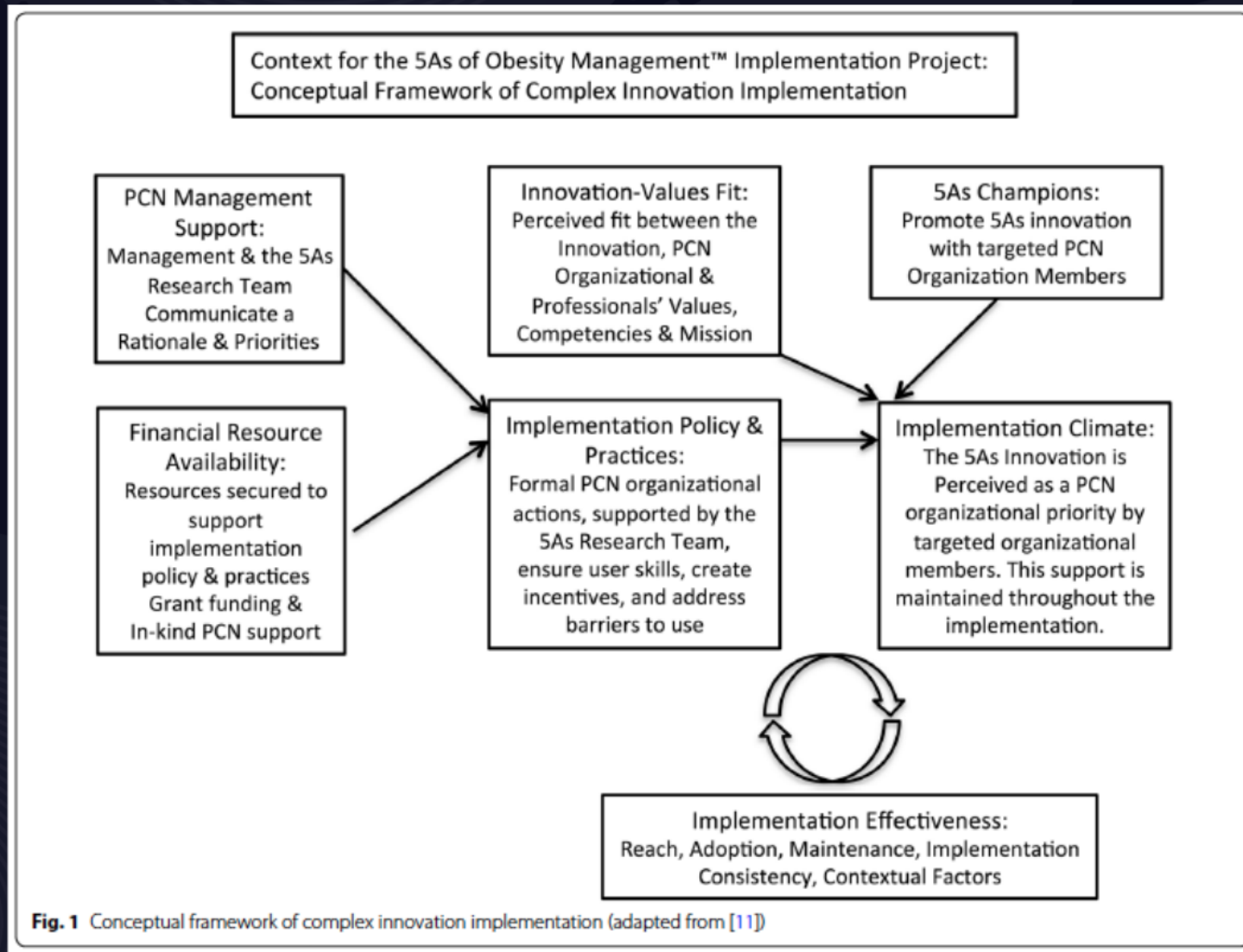
Effectiveness of the intervention

Adoption by target settings

*Implementation including consistency
and cost of delivery*

*Maintenance of intervention effects
over time*

Group discussion



Helfrich, CD, Weiner, BJ, McKinney MM, Minasian L. Determinants of Implementation Effectiveness. Adapting a Framework for Complex Innovations.

Campbell-Scherer, DL, Asselin J, Osulana A, et al. Implementation and evaluation of the 5As framework of obesity management in primary care: design of the 5As Team (5AsT) randomized control trial.



Discussion of Examples

Final Thoughts

Thinking about implementation - either a new innovation requiring a change in clinical mindlines systematizing evidence-based practice reproducibly in a setting - benefits from reflecting on NPT.

Frameworks are useful structures for planning your implementation strategy and for guiding your approach to evaluation of your intervention.

Both interventions and implementation processes in the real world are best thought of as iterative, with ongoing refinement through bidirectional knowledge transfer between those doing the work with tacit knowledge of task and context, and those with the theoretical and content knowledge of the intervention.

