



# Understanding the individual and organisational factors influencing the management of patients with patients with minor head injuries in the emergency department

A qualitative study to inform the development of an implementation intervention

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# Background - context

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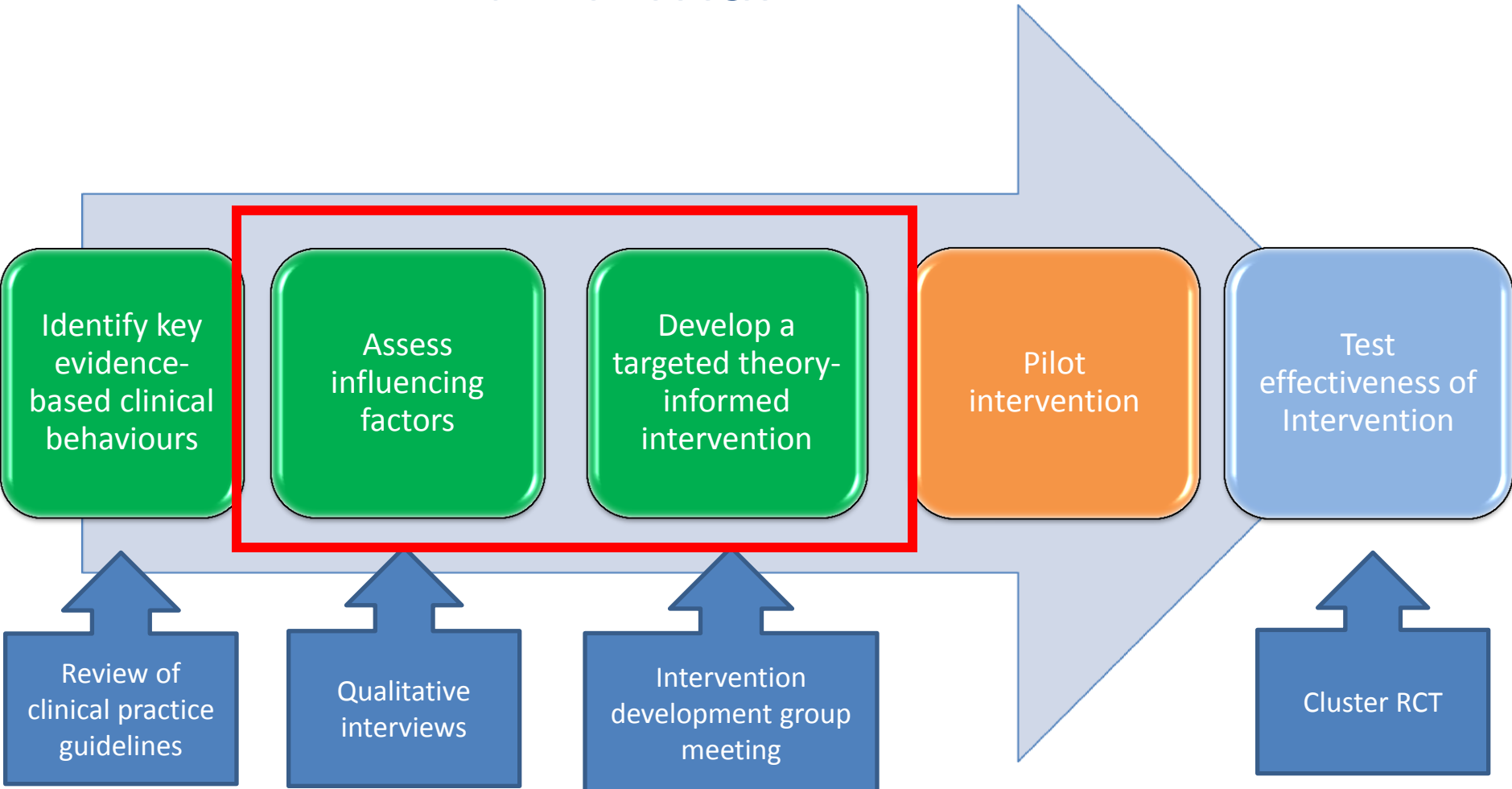
- Neurotrauma Evidence Translation (NET) Program <sup>1</sup>
- The ED management of minor head injuries
- Key clinical behaviours <sup>2,3</sup>
  - Assessment of Post Traumatic Amnesia (PTA) using a validated tool
  - Determining need for CT scan using clinical decision criteria
  - Providing verbal & written patient information

1) Green S, et al. Implement Sci 2012; 7(1)

2) Tavender E, et al. Acad Emerg Med 2011; 18(8):880-9

3) Bosch M, et al. J Evol Clin Prac 2012 Apr 9. doi: 10.1111/j.1365-2753.2012.01835.x. [Epub ahead of print]

# NET-Trial



# Assess influencing factors

Identify key evidence-based clinical behaviours

Assess influencing factors

Develop a targeted theory-informed intervention

Pilot intervention

Test effectiveness of Intervention

Review of clinical practice guidelines

Qualitative interviews

Intervention development group meeting

Cluster RCT

# Theories

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1. Helps explain 'why', 'when', and 'how'
2. Helps to prevent overlooking factors
3. Provides an explicit framework for evaluation across setting and topics

# Frameworks

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- Consolidated Framework for Implementation Research (CFIR)
- Promoting Action on Research Implementation in Health Services (PARISH)
- Ottawa Model of Research Use (OMRU)
- ‘Framework for Improvement’
- And many others.....

# Two frameworks

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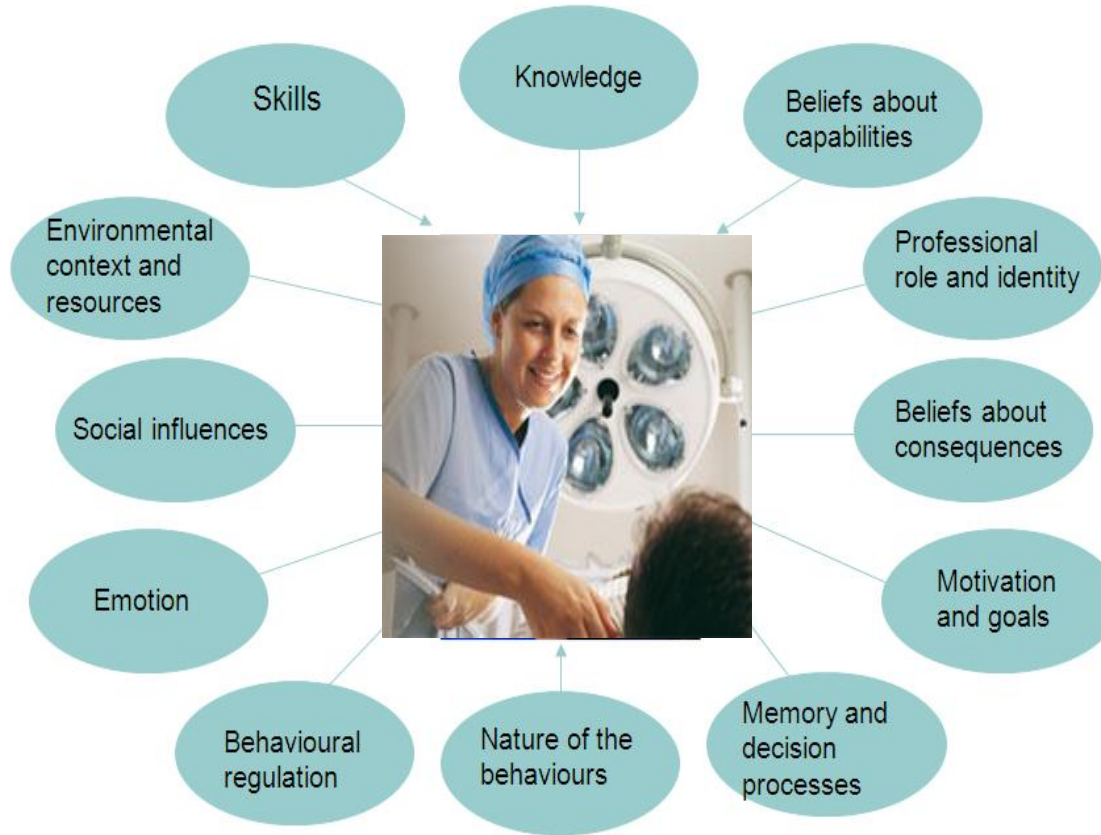


Factors influencing  
the uptake of 3 key  
recommended  
practices

Change management &  
factors influencing  
uptake from an  
organisational  
perspective

# Theoretical framework 1

## Theoretical Domains Framework <sup>1,2</sup>



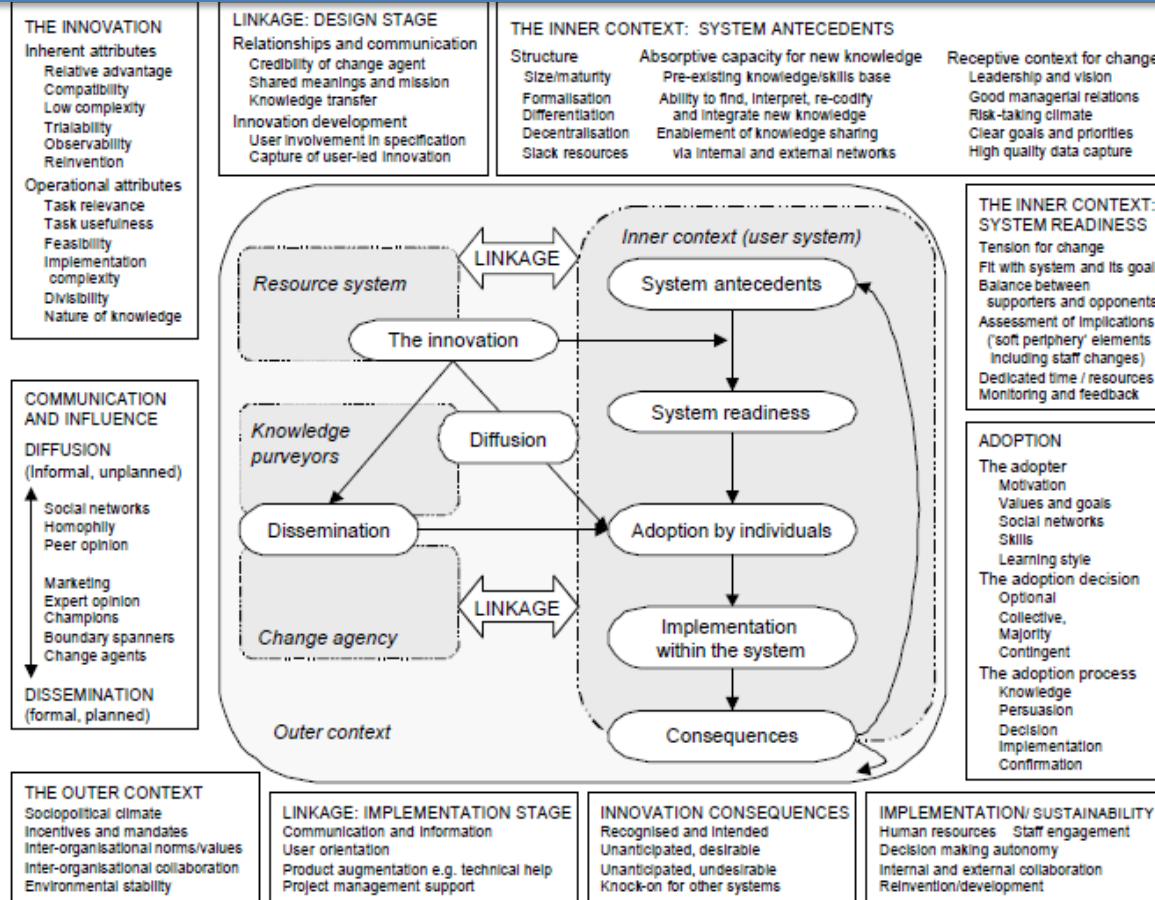
1) Michie et al. Qual Saf Health Care 2005; 14(1);

2) Cane et al. Implement Sci 2012; 7(1).



# Theoretical framework 2

## Conceptual model for spread and sustainability of innovations in organisations



# Assess influencing factors - interviews

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## Methods

- Single in-depth semi-structured interviews
- Sampling frame: VIC 24-h EDs
- Purposeful sample
- Thematic / Saliency analysis
- 2 theoretical frameworks

## Results - sample

- 13 hospitals
  - 8 major cities
  - 5 regional
- 42 respondents
  - 9 ED directors
  - 20 senior doctors
  - 6 junior doctors
  - 3 senior nurses
  - 10 junior nurses

# Interview results (PTA) framework 1

Domain	Factors
Knowledge	Lack of awareness tools
Skills	Lack of training
Environmental context / resources	Validated tool not available / no space in notes
Beliefs about consequences	Concerns around increased time for patient to spend in ED

# Interview results framework 2

Domain	Factors
Communication and influence	Silo-based
Inner context – change management	Swift work, high turn-over rates
Inner context – system antecedents	Positive perceptions of ‘climate for change’
System readiness	Mixed tension for change

# Design intervention

Identify key evidence-based clinical behaviours

Assess influencing factors

Develop a targeted theory-informed intervention

Pilot intervention

Test effectiveness of Intervention

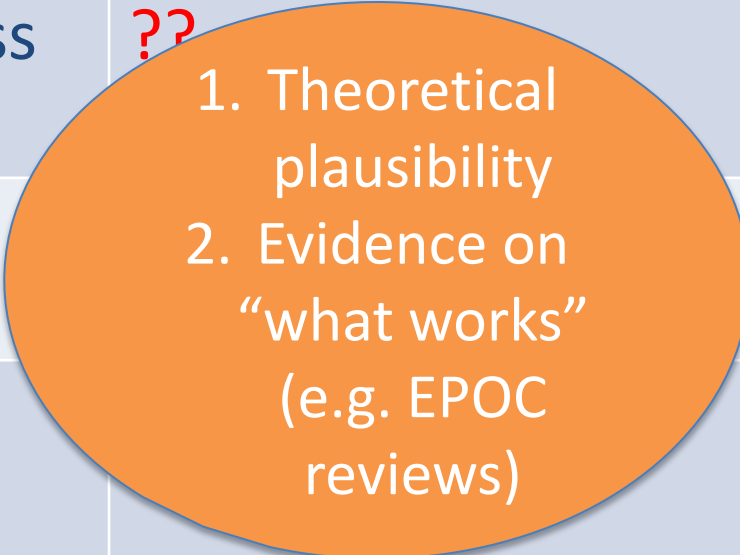
Review of clinical practice guidelines

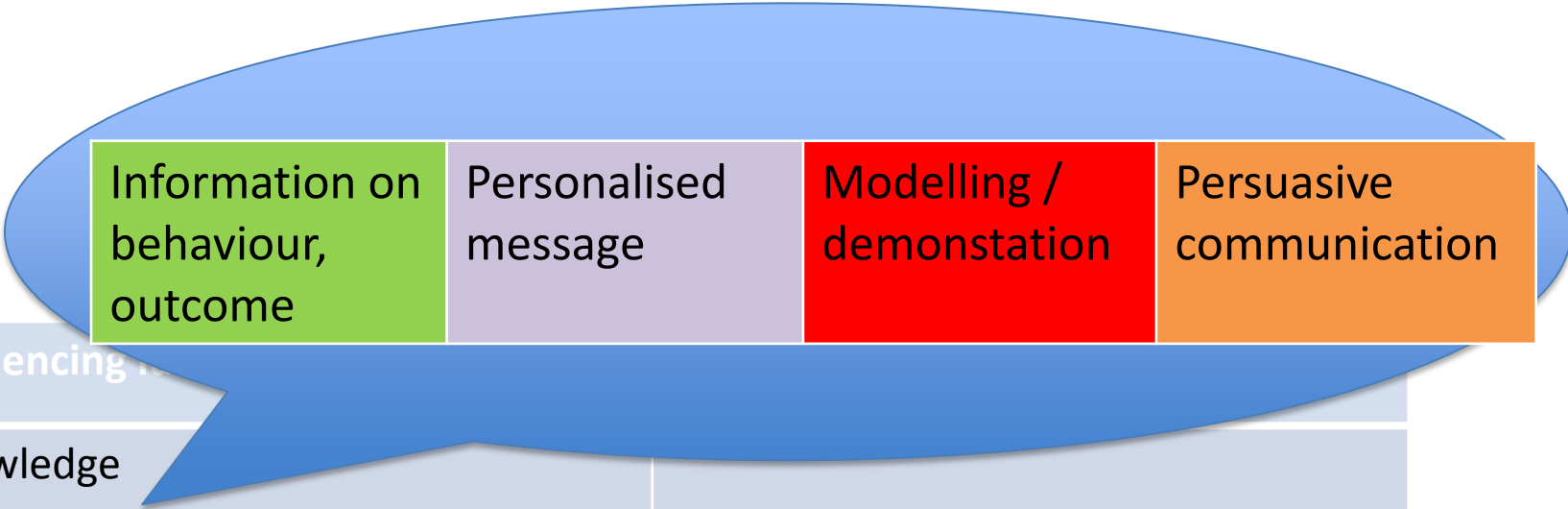
Qualitative interviews

Intervention development group meeting

Cluster RCT

# Targeting intervention components

Domains	Factors	Intervention components
Knowledge	Lack of awareness tools	??
Skills	Lack of training	 <ol style="list-style-type: none"> <li>1. Theoretical plausibility</li> <li>2. Evidence on "what works" (e.g. EPOC reviews)</li> </ol>
Communication & influence	Silo-based	



Influencing ...	
Knowledge	
Beliefs about consequences	
Skills / beliefs about capabilities	
Silo-based communication / influence	

AGREED USE; DISAGREEMENT; AGREED NON-USE; UNCERTAIN

## Influencing factors

Knowledge

Beliefs about consequences

Skills / beliefs about capabilities

Silo-based communication / influence

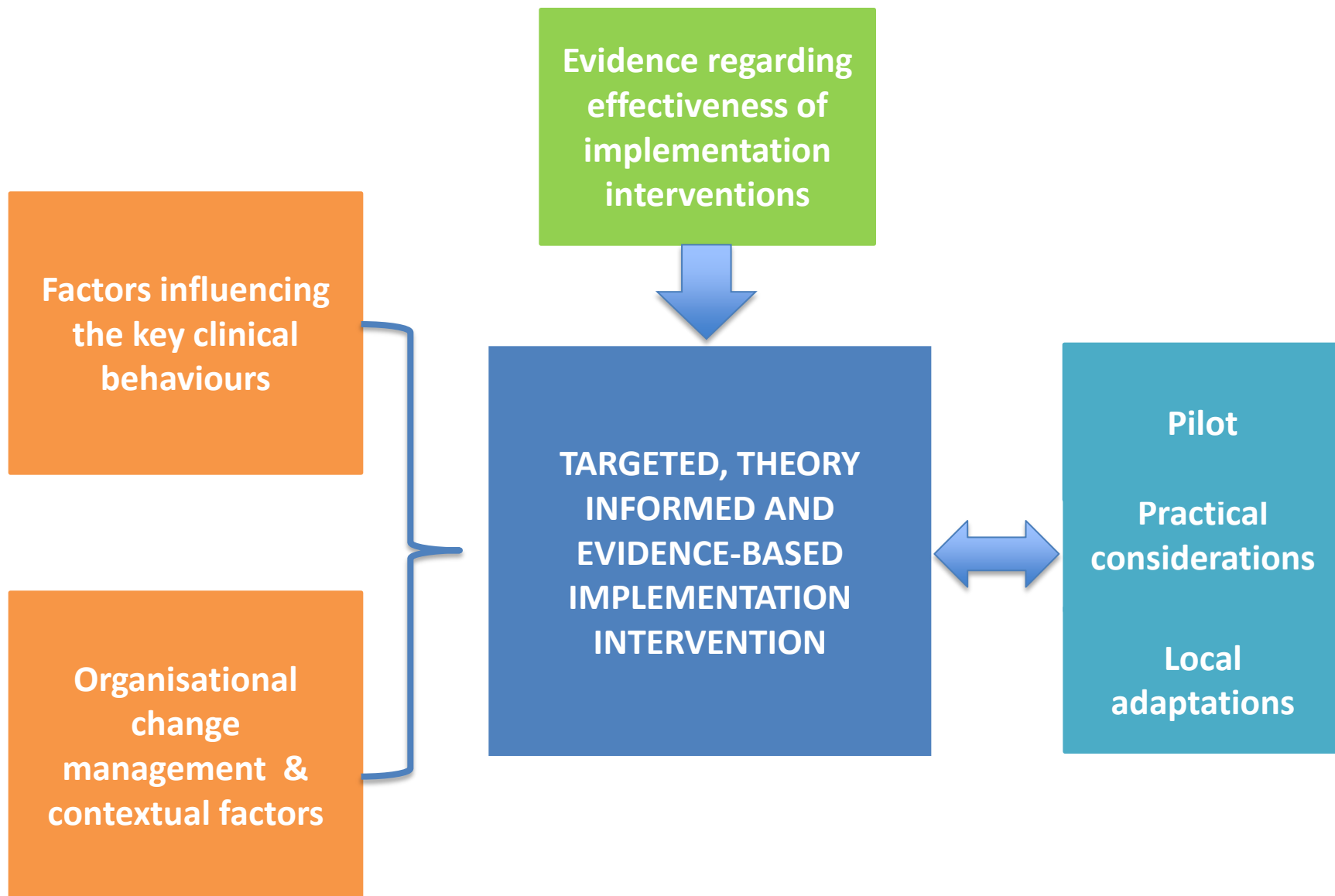
Diffusion of innovations theory

Leadership theory

Organise communication via peer / social networks

Identify 'informal' leaders  
**EPOC: local opinion leaders**





**IN SUMMARY**

**This project is proudly supported by:**



**TRANSPORT  
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**Victorian neurotrauma initiatives  
*Research programs of the  
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# QUESTIONS?