

Research Models and Frameworks

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Evidence-Based Practice

- How to consider the use of theory, models and frameworks in the implementation of evidence-based practice.
 - Types of models and frameworks
 - Appropriateness
 - Inform theory
- The struggle to incorporate new knowledge into practice!



Implementation to practice?

- Diffusion
 - Occurs naturally or passively (i.e., clinicians adopt policies or procedures)
- Dissemination
 - Info is actively communicated to clinicians to improve their knowledge – targeted groups
- Implementation
 - Actively and systematically integrating info into practice
 - targeting effective communication and barriers
- Adoption
 - Clinicians commit to change



Some Definitions

- Theory – concepts that characterize a particular phenomenon
 - Theory can be:
 - Descriptive – Describe properties and qualities
 - Explanatory – specify relationships
 - Predictive – predict relationships (hypothesis or propositions)
- Conceptual Framework – set of concepts and the propositions that integrate them into meaningful proposals/practices
- Model – narrower in scope and more precise, models are representations of the real thing, they attempt to objectify the concept



Ways Theory is Relevant to EBP

- Theory-based **intervention** development
 - Will approach/intervention work
- Using theory to help identify appropriate **outcomes, measures and variables** of interest
 - Help select tools and variables of interest
- Theory-guided **evaluation of implementation process**
 - Fine tuning – context of interest
 - Applying organizational theory to evaluation or implementation

Double-blind drug study for drug to treat depression



Using depression screening tool to determine prescribing the drug



Implementation of tool in hospitalized population



Choosing between Research Theories

- Questions to ask:
 - What are the origins of the theory?
 - What is the meaning of theory?
 - Is the theory logically consistent?
 - Is the theory generalizable?
 - Is the theory useful? – **Is the theory going to help me understand.**
 - Is the theory testable?
 - Is the theory appropriate? – **Does the theory chosen fit the purpose!**

Rycroft-Malone, J. and Bucknall, T. (2010). *Models and Frameworks for Implementing Evidence-Based Practice: Linking Evidence to Action*. Wiley-Blackwell: Oxford.



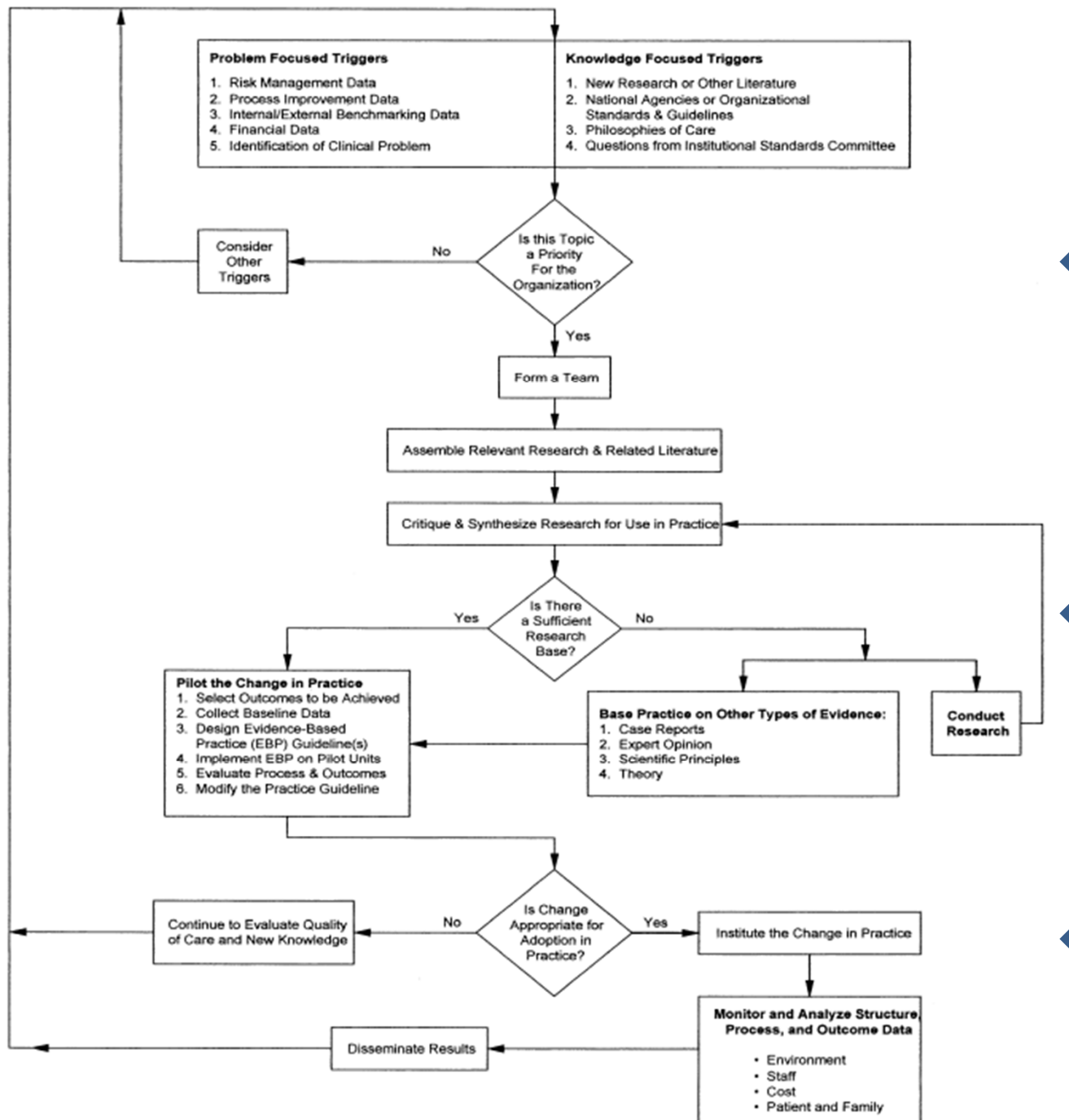
Some Common Models and Frameworks



IOWA Model

- Primary purpose of guiding practitioners in the use of evidence to improve outcomes.
- Base on planned action process, and incorporates conduction of research, use of research evidence, and other types of evidence.
- Assumptions as basis of the model: 1)working as a team 2) evaluation is essential to the process 3)EBP is a process not an event.





Triggers or reasons for Practice Change

Internal Research – part of the model

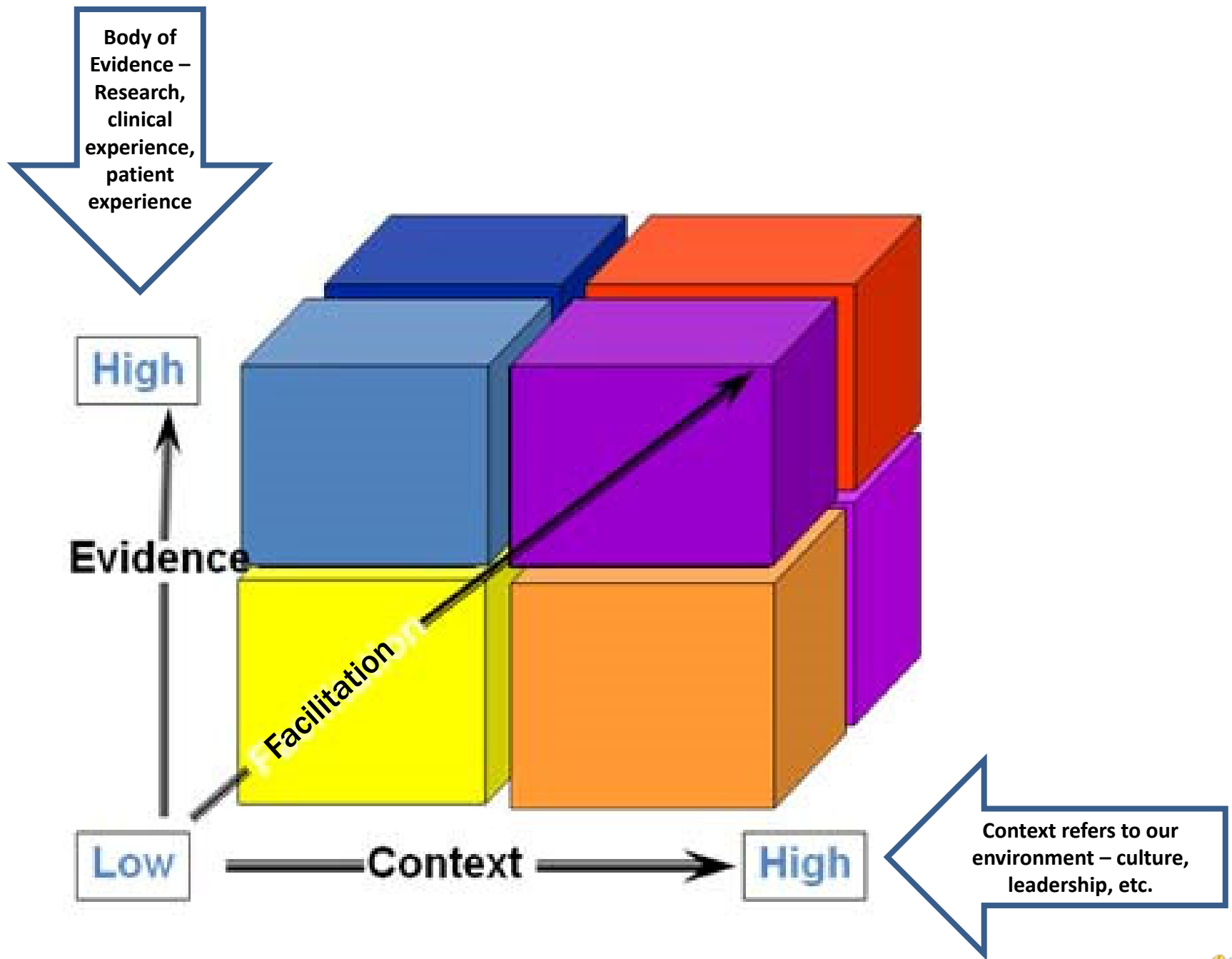
Evaluation of Research for implementation



PARIHS Model

- Promoting Action on Research Implementation in Health Services (PARIHS)
- Focused on the function of the evidence and the quality of the **context of implementation**, and appropriate **approaches to facilitation**.
- Useful for those wanting to implement evidence into practice but probably best used with those who are researching implementation itself.





Ottawa Model of Research Use

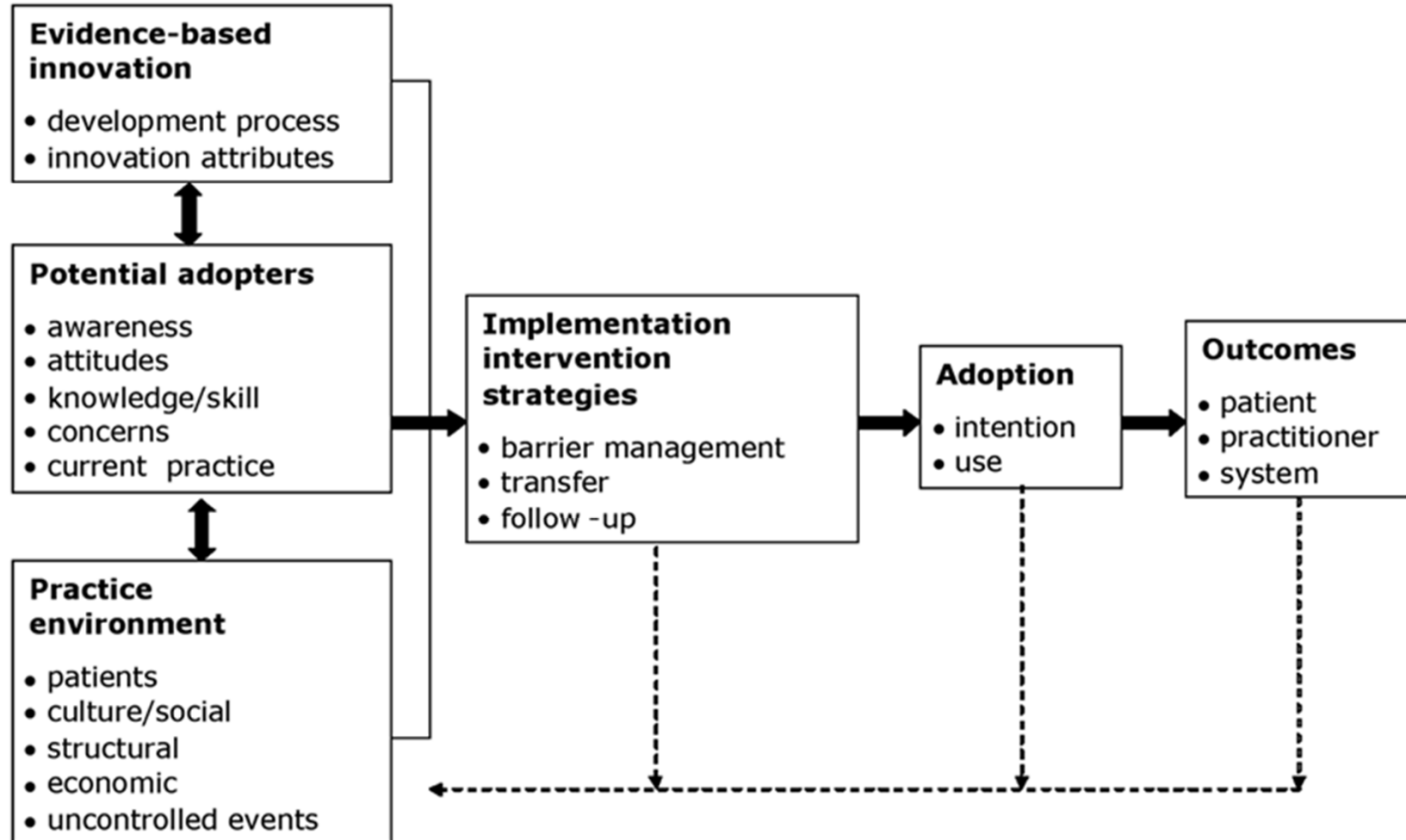
- A planned action model – very prescriptive in nature
- Assists facilitators to implement valid research into practice
- Integrates knowledge creation
- Applicable to any level of delivery of care
- Not a very precise model for research projects but can be a very effective model in implementing research and evaluating the effects.



**Assess
barriers and supports**

**Monitor
intervention and degree of use**

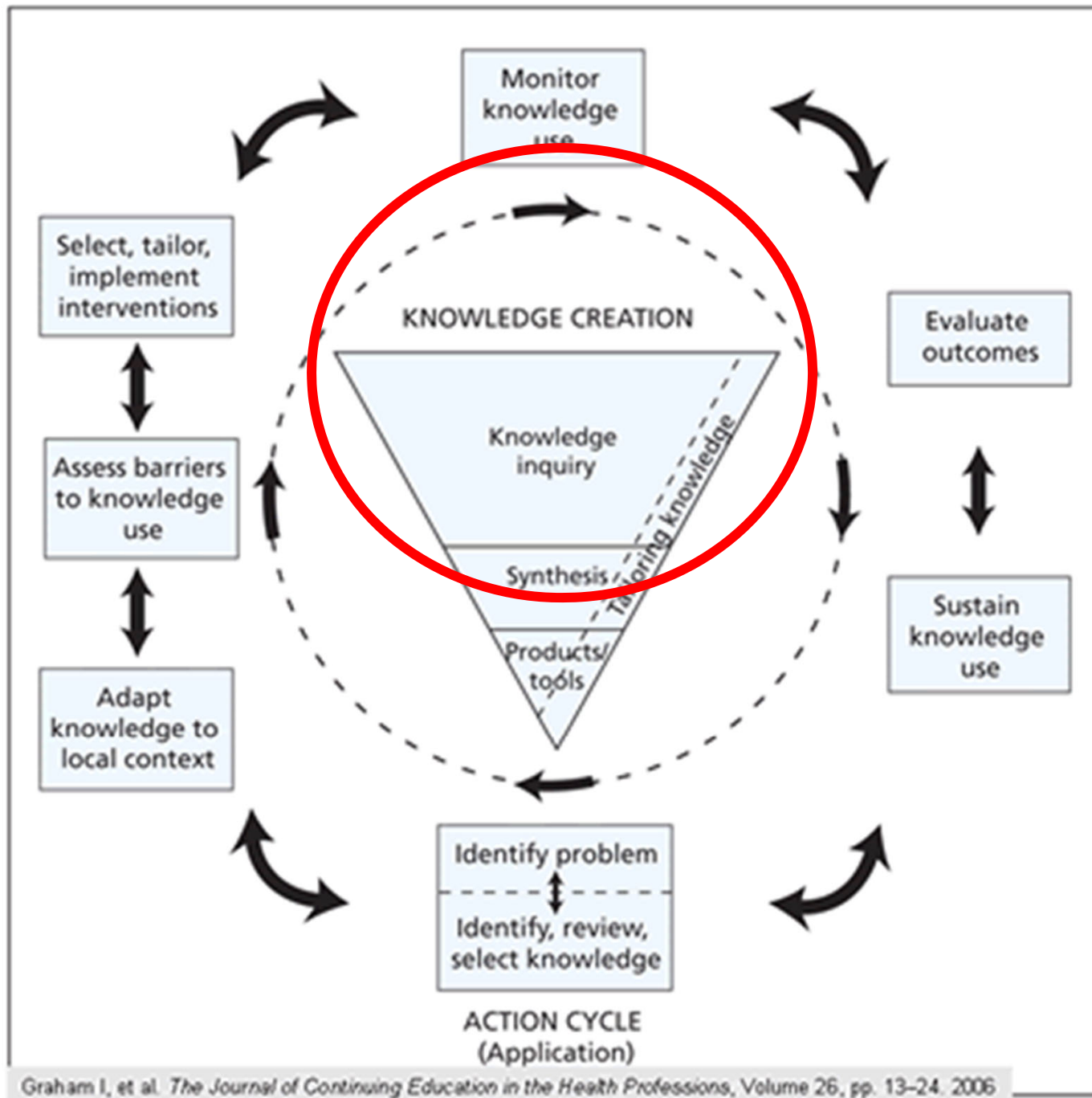
**Evaluate
outcomes**



Knowledge to Action Framework

- Knowledge to Action Framework (KTA)
- Assumes a systems perspective – takes local culture and context into consideration
- Can be used by a broad range of audiences all at one time
- Very prescriptive to implementation
- Not tested empirically as a research model





Evaluating Models

Model	Type		Purpose			Development	
	Model	Frame work	Descriptive	Explanatory	Predictive	Inductive	Deductive
IOWA	X		X	X			X
PARIHS		X	X	X		X	
OTTAWA	X		X	X		X	
KTA		X	X	X	X	X	X

Rycroft-Malone, J. and Bucknall, T. (2010). *Models and Frameworks for Implementing Evidence-Based Practice: Linking Evidence to Action*. Wiley-Blackwell: Oxford.



Model Use

Model/ Framework	Types of Use	Types of Evidence
IOWA	<ul style="list-style-type: none"> ✓ To guide improvement projects ✓ Guiding framework for Grants ✓ EBP research/implementation science 	Qualitative research Quantitative research Mixed method research Quality Improvement data
PARIHS	<ul style="list-style-type: none"> ✓ Conceptual framework for research design ✓ Basis for tool development ✓ Practice development 	Qualitative research Quantitative research Mixed method research Conference presentations
Ottawa	<ul style="list-style-type: none"> ✓ Guide research studies ✓ Inform analysis ✓ Quality improvement research ✓ Guide implementation 	Qualitative research Quantitative research Mixed method research Conference presentations
KTA	<ul style="list-style-type: none"> ✓ To inform policy ✓ Conceptual framework for research design ✓ Guide for knowledge management 	Policy documentation and messaging Research proposals



The End

