



# In The Name of God



## Knowledge Translation & Exchange



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## Overview

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- *Why is KT Important?*
- *What are the Theories and Models of KT?*
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- *Knowledge Translation Process*

## Introduction

- *Health care providers recognize the importance of using research in their day-to-day practice and the overall impact this can have on the health of their clients.*
- *However, effectively using research knowledge in practice can be challenging, as there are many barriers to this process, often leading to a "gap" between knowledge and practice.*
- *Researchers have recently begun to explore ways to bridge this gap by studying the process of Knowledge Translation (KT).*

## Introduction (Con.)

- *Knowledge Translation involves gathering, evaluating, summarizing and sharing relevant knowledge on a particular topic.*
- *It is a complex, two-way process between those who develop the knowledge and those who will use the knowledge.*
- *Many terms have been used to describe this process including knowledge transfer, knowledge transfer and exchange, knowledge dissemination, knowledge management, and research utilization.*

## Knowledge Translation (KT): Definition and Purpose

- *Traditionally KT has been defined as a "dynamic and iterative process that includes the synthesis, dissemination, exchange, and **ethically** sound application of knowledge to improve health, provide more effective health services and products and strengthened the healthcare system" (**Canadian Institutes of Health Research, 2009**).*

## Knowledge Translation (KT): Definition and Purpose

*At CanChild, we define knowledge translation as the creation, synthesis, and dissemination of research evidence in a **user-friendly** and **accessible way** that is relevant and meaningful for youth, families, and health care providers.*

*This process involves two essential phases; knowledge creation and knowledge application (Graham, 2006).*

## Why is KT Important?

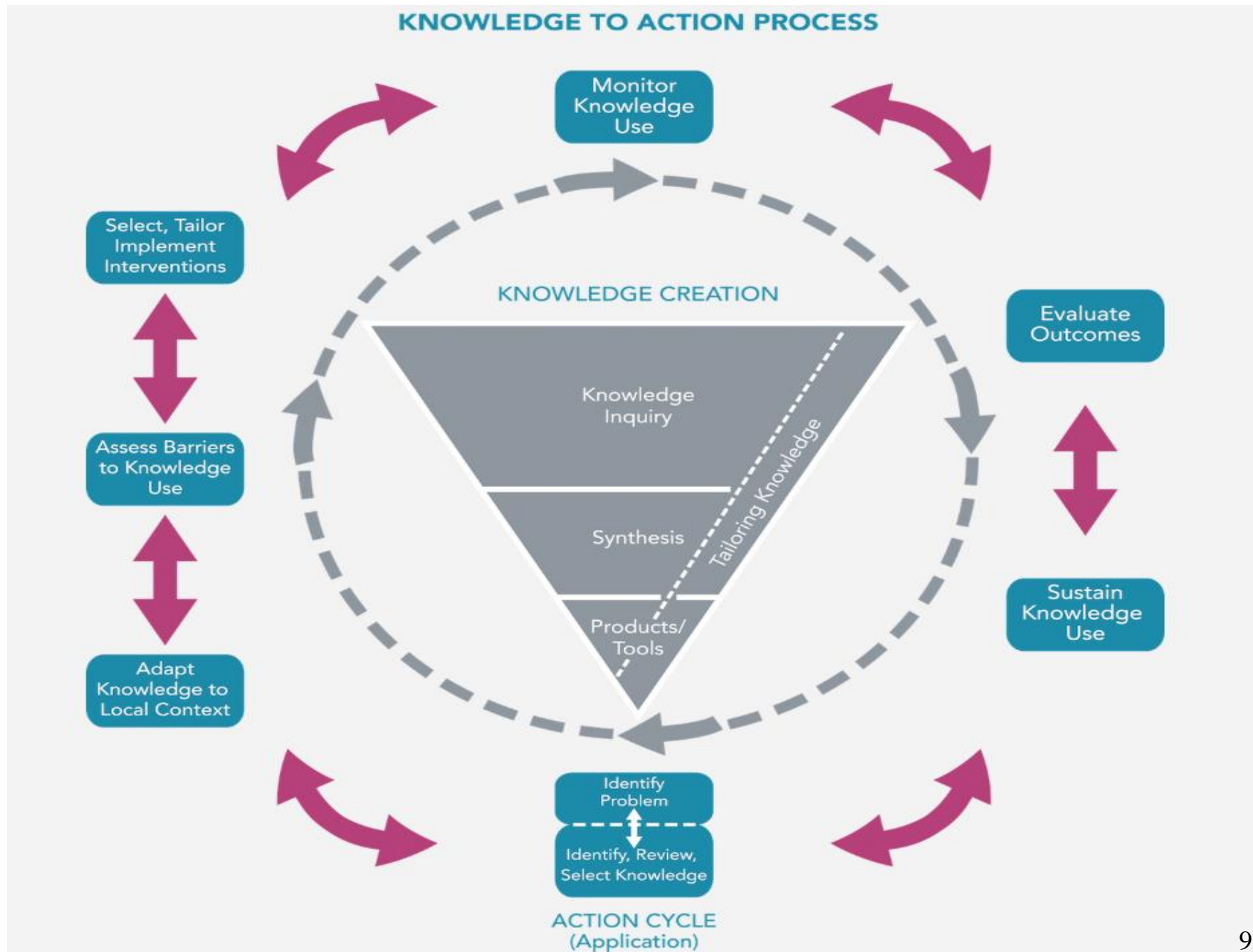
- Knowledge translation is important in bridging the gap between **research and practice** so that patients can benefit optimally from advances in research evidence (Bates et al., 2003, Gilbert et al., 2005).
- Our healthcare system invests approximately \$100 billion annually in biomedical and health research, however, research findings are never fully implemented into the health-care system.

## Why is KT Important? (Con.)

- *Proper implementation of research, also known as knowledge translation, helps patients, doctors, hospital managers, and policy-makers understand all of the available health-care alternatives, and their respective benefits and risks, which enables them to make informed decisions.*

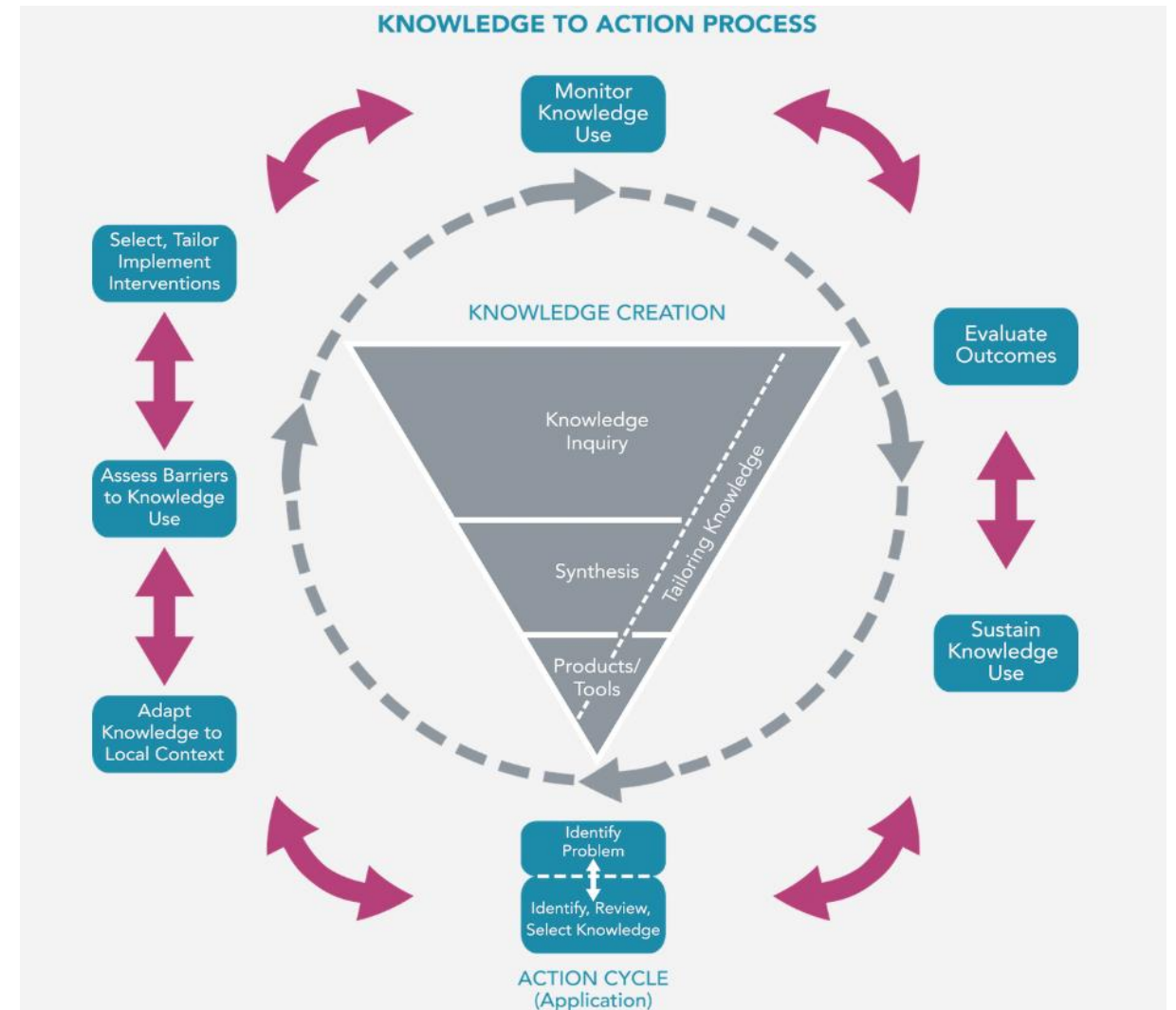


# What are the Theories and Models of KT?



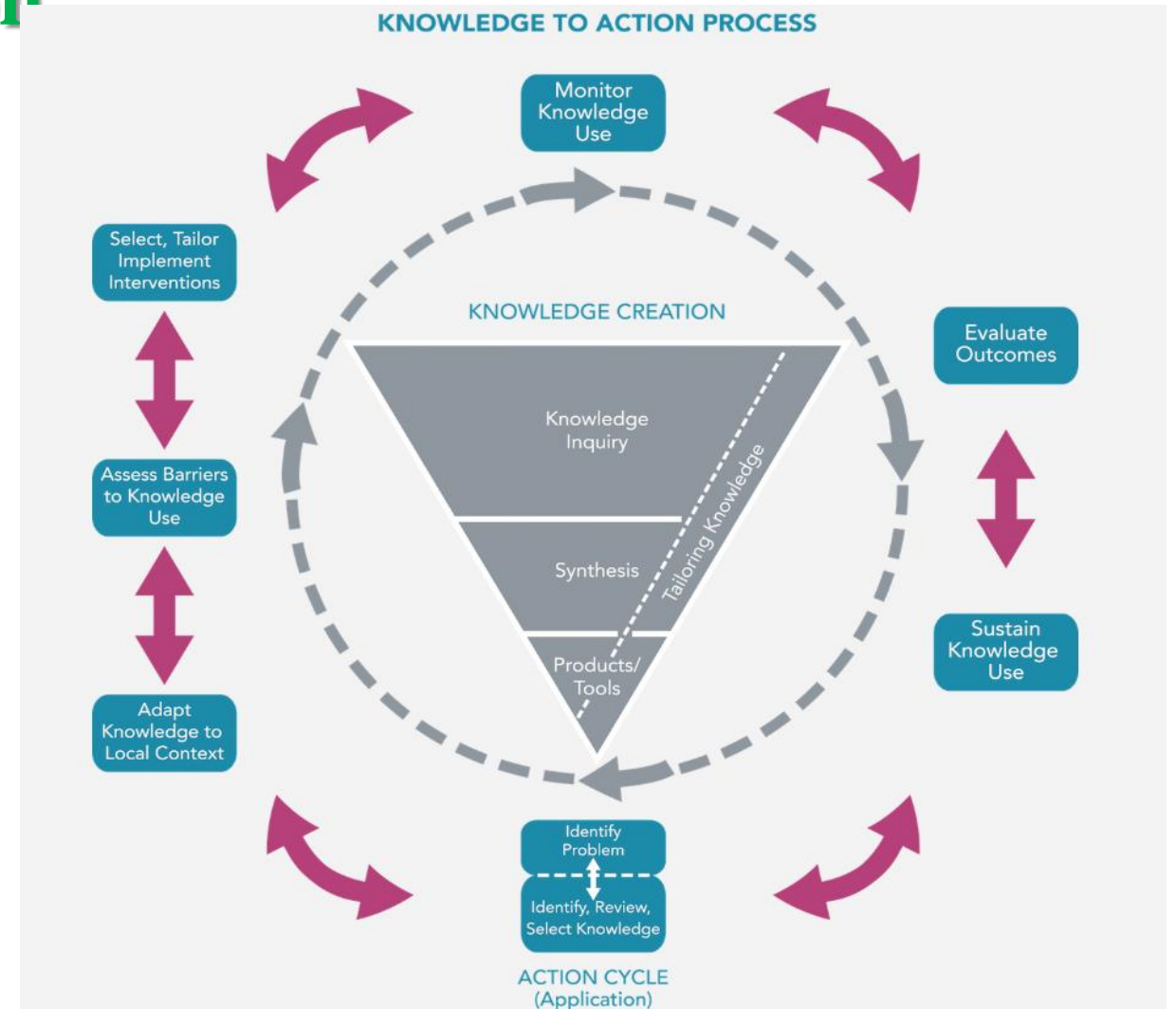
# Knowledge Creation

- The knowledge creation phase is represented by the funnel in the middle of the diagram. This phase involves knowledge inquiry (selection of a research question/topic of interest), and synthesis of information to produce a knowledge product/tool.



# Knowledge Application

- Knowledge application is the "action" phase, which involves tailoring the knowledge for product/tool implementation and dissemination. This phase also involves the monitoring, evaluation, and sustainability of the knowledge product.



## What are effective KT Strategies?

1. *Audit and Feedback: Healthcare professionals are given feedback (written, electronic or verbal) on their clinical performance over a specified period of time - they would then modify their practice depending on feedback.*

## What are effective KT Strategies?

2. *Tailored Interventions: Interventions are planned and delivered to address specific, pre-determined barriers to changing professional practice and health outcomes.*

## What are effective KT Strategies?

3. *Organizational Structures: Changes in organizational structures (task allocation, coordination and supervision) could promote the implementation of research guidelines.*

## What are effective KT Strategies?

4. *Interactive Strategies: Researchers develop a partnership with knowledge users, incorporating their opinions in the knowledge production process.*



# Knowledge Translation Process

## Knowledge Translation Process





# 1. Research Question

- *A research question can stem from a personal idea, issue, or concept.*
- *Knowledge users such as families, clinicians, researchers, and policy makers should be involved at this stage to assist with setting research priorities and ensuring that the research question is relevant and applicable.*

## 2. Research Planning and Design

*There are numerous ways of designing a research study depending on the question (e.g. collecting peoples opinions and views regarding a topic, or comparing groups of people). Issues for consideration include:*

- a) Timeline and funding.*
- b) Participants, sampling, and recruitment.*
- c) Ethical considerations.*

*The primary outcome of this stage is a research protocol.*

### 3. Data Collection and Analysis

- *Carrying out the procedure described in the research protocol in order to collect the necessary information that will help answer the research question.*
- *The type of analysis used will depend on the design of the study, the way the data are collected and the question being asked.*

## 4. Tailoring and telling people about the research results

- *During data analysis, it is essential to consider how and why the results are important for knowledge users or the intended target population.*
- *It is essential that the results are tailored and presented in a meaningful manner that is relevant, user-friendly, and accessible to knowledge users.*

## 4. Tailoring and telling people about the research results (Con.)

- *There are multiple ways of informing people (service users, practitioners, researchers and decision makers) about research.*
- *Some examples include, but are not restricted to, giving talks, writing articles for journals, press releases, publishing information leaflets and updating information on websites.*

## 5. Changing Practice

- *If research results are important and people are well informed, this can lead to a change in practice.*
- *Knowledge translation and dissemination are important in bridging the gap between research and practice to ensure that patients are benefiting optimally from medical advances.*

## 6. Re-evaluate & Sustain Knowledge

- *If a change is shown to be a good one then we want to know if it is maintained over time.*
- *Research which is tracking forward in time (prospectively) can follow up to look at long term sustainability.*
- *Answering a research question often leads to the emergence of more questions, which can subsequently lead to further research.*

## Conclusion

- ✓ *There is a "gap" between knowledge and practice.*
- ✓ *Knowledge translation is important in bridging the gap between research and practice.*
- ✓ *Knowledge translation is the process of Knowledge creation and knowledge application.*
- ✓ *Proper implementation of research= knowledge translation*



**Thank you very much for your consideration**

