Introduction to Knowledge Translation

New Knowledge & Innovation

June 18, 2019
Objectives

• Define and explain how Knowledge Translation (KT) relates to your practice.

• Apply principles of KT in planning education & implementation activities.

• Support clinicians in using KT tools & evidence in their practice.

• Know where to learn more about KT.
The research says:

• “…30%-45% of patients are not receiving care according to scientific evidence…”

• “…20% - 25% of the care provided is not needed or is potentially harmful.”

• “practice audits performed in a variety of settings have revealed that high-quality evidence is not consistently applied in practice.”

This is the “pipeline of evidence” from basic research to practice and policy, which assumes the research passes through a series of steps that ensures the quality of the science but seldom addresses the relevance and fit of the evidence for application in practice.

“Knowledge Translation”

- The exchange, transfer and dissemination of knowledge
- The process describing, guiding & informing the moving of evidence into practice

aka:

<table>
<thead>
<tr>
<th>KT</th>
<th>KM</th>
<th>Implementation (sub-specialty)</th>
<th>Technology Transfer</th>
<th>Translation Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Translation</td>
<td>Knowledge Management</td>
<td>Implementation Science</td>
<td>Technology Transfer</td>
<td>Translational Medicine</td>
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<td>Knowledge Exchange</td>
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<td>Translational Science</td>
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<td>Knowledge Mobilization</td>
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<td>Knowledge Brokering</td>
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Source: SickKids [http://www.sickkids.ca/Learning/AbouttheInstitute/Programs/Knowledge_Translation/Resources/Resources.html](http://www.sickkids.ca/Learning/AbouttheInstitute/Programs/Knowledge_Translation/Resources/Resources.html)
What do they have in common?

What we know

What we do
Continuing Education
- Clinical competence
Audience:
Individual health care professionals

Continuing Professional Development
- Lifelong learning to maintain competence to meet needs of patients, health system & personal professional development
Audience:
Individual health care professionals

Quality Improvement
- Change management
- Processes & PDSA
- Local implementation
- Monitoring data
Audience: Interprofessional & team care

Knowledge Translation
- Theories & Frameworks
  - Evidence
- Barriers & facilitators
- Behaviour or systems change
Audience: Health care professionals, patients, policy makers; other researchers

GOAL: Improve Patient Care & Health Outcomes
KT Strategies – the continuum

Letting it Happen (diffusion)
- Email
- Newsletter
- Published articles
- Conference presentations
- Web-based activities

Helping it Happen (dissemination)
- Patient decision aids
- Clinical practice guidelines
- Reminders

Making it Happen (implementation)
- Knowledge to Action process model
- Opinion leaders
- Educational outreach

Adapted from: Alberta SPOR presentation; Straus SE et al. Practicing Knowledge Translation Course. Knowledge Translation Program, St. Michael’s Hospital, Toronto, Ontario, 2015.
Examples of KT interventions by context

- **Educational**
  - Lecture
  - Conference
  - Educational outreach visits

- **Professional**
  - Reminders
  - Decision support
  - Audit & feedback

- **Patient- & Family-directed**
  - Health literacy
  - Patient Decision Aids
  - Coaching

- **Organizational**
  - Redesign of services
  - Integrated care
  - Interprofessional practice
Knowledge to Action Cycle

1. Identify a problem that needs addressing
2. Identify, review, and select the knowledge or research relevant to the problem (eg. Practice guideline)
3. Adapt the identified knowledge or research to the local context
4. Assess barriers & facilitators to using the knowledge
5. Select, tailor, and implement interventions to promote the use of the knowledge
6. Monitor knowledge use
7. Evaluate the outcomes of using the knowledge
8. Sustain ongoing knowledge use
Knowledge to Action Cycle

 “…conceptualizes the relationship between knowledge creation and action…”

Funnel conveys that knowledge needs to be increasingly distilled before it is ready for application.

Knowledge to Action Cycle

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Why Plan for Implementation?

• To address the relevance and fit of the evidence for application in practice.

• To thoughtfully assess and respond to the particular circumstances of the implementation – the change to be introduced, the proposed way to make the change, the people who need to be involved, and the setting in which the change happens.
The KT planning process

1. Define the Gap
2. Key Message(s)
3. Partners & Stakeholders
4. Determine goal(s)
5. Explore Barriers & Facilitators
6. Select Strategies

EVALUATE
Case study

A revised guideline from infection control has been published, and there is a new recommended process for swabbing the port for a central line. After confirming the evidence, consulting with colleagues and adjusting policy accordingly, you now need to make a plan to integrate the new practice.
Gap identified

- Describe the gap: current practice is to swab a port for 10 seconds, the new process requires 30 seconds.
- Does the gap need to be addressed? Yes.
- Timeline for action? As soon as possible.
- KT Plan lead: you!
Key Messages for Action

• Key message: Due to new evidence identified in infection control, you must swab or scrub the port for 30 seconds instead of 20 seconds

• Audience:
  – Clinicians (staff RNs)
  – Administrative staff (for supplies?)
Partners

• Fellow educators on other units who need to roll out similar change in practice
  – Role: collaborators

• Clinicians: experienced RNs familiar with clinical practice change
  – Roles: Supporters & champions
Define your KT Goals

• KT depends on behaviour (health professionals, managers, policy makers, patients & families)

• To improve KT you need to change behaviour

• What is the behaviour that you are trying to change?
KT Goals

Change in:
✓ Process
✓ Practice

Generate:
✓ Awareness
✓ Knowledge
✓ Skills
<table>
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<tr>
<th>Barriers</th>
<th>Facilitators</th>
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<tr>
<td><strong>Individual Level</strong></td>
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<tr>
<td>Lack of experience and capacity for assessing evidence</td>
<td>Ongoing collaboration Values research</td>
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<tr>
<td>Mutual mistrust</td>
<td>Networks</td>
</tr>
<tr>
<td>Negative attitude toward change</td>
<td>Building of trust Clear roles and responsibilities</td>
</tr>
<tr>
<td><strong>Organizational Level</strong></td>
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</tr>
<tr>
<td>Unsupportive culture</td>
<td>Provision of support and training (capacity building)</td>
</tr>
<tr>
<td>Competing interests</td>
<td>Sufficient resources (money, technology)</td>
</tr>
<tr>
<td>Researcher incentive system</td>
<td>Authority to implement changes</td>
</tr>
<tr>
<td>Frequent staff turnover</td>
<td>Readiness for change Collaborative research partnerships</td>
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<tr>
<td><strong>Related to Communication</strong></td>
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<tr>
<td>Poor choice of messenger</td>
<td>Face-to-face exchanges</td>
</tr>
<tr>
<td>Information overload Traditional, academic language</td>
<td>Involvement of decision makers in research planning and design</td>
</tr>
<tr>
<td>Traditional, academic language</td>
<td>Clear summaries with policy recommendations</td>
</tr>
<tr>
<td>No actionable messages (information on what needs to be done and the implications)</td>
<td>Tailored to specific audience</td>
</tr>
<tr>
<td><strong>Related to Time or Timing</strong></td>
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<tr>
<td>Differences in decision makers' and researchers' time frames</td>
<td>Sufficient time to make decisions</td>
</tr>
<tr>
<td>Limited time to make decisions</td>
<td>Inclusion of short-term objectives to satisfy decision makers</td>
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</table>
Barriers and Facilitators
Identify 1-3 priorities

**Barriers**
- Memory and attention
- Processes supporting or hindering change
- Beliefs about consequences of the change/action

**Facilitators**
- Credibility/acceptability of the evidence
- Ability/skills
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PASSIVE ➔ ➔ ➔ ➔ ➔ ➔ ➔ ➔ ➔ ➔ ➔ ➔ ACTIVE

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What are your ideas for active knowledge translation strategies?
Cultivate competence in knowledge translation

An online self-assessment tool and resource guide to help you to identify and improve your KT skills and knowledge.

About KT Pathways

Take the KT Pathways Assessment

Create Account
Already a member?
Login

https://ktpathways.ca/
Pick your pathway

https://ktpathways.ca/
References & Resources

• BC Children’s and BC Women’s Knowledge Translation Subject Guide: https://cw-bc.libguides.com/home/kt


• SickKids Knowledge Translation Resources http://www.sickkids.ca/Learning/AbouttheInstitute/Programs/KnowledgeTranslation/Resources/Resources.html
Additional resources

Knowledge Translation Subject Guide: https://cw-bc.libguides.com/home/kt

C&W Library & Knowledge Services: https://cw-bc.libguides.com/home

C&W New Knowledge & Innovation Resource Site: http://our.healthbc.org/sites/NewKnowledgeAndInnovation/SitePages/Home.aspx

Contact: Andrea Ryce, Clinical Librarian, andrea.ryce@cw.bc.ca