Understanding the theory behind knowledge mobilization

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August 17, 2015.
Outline

• Getting to know each other
• The value of theory
• Understanding & application
• Take-home messages
Getting to know me…

- PhD in Epidemiology
- Practice ‘Social Epi’
- Focus on health promotion, communication & behaviour change
• Designing, implementing and evaluating health promotion projects
  o In public and animal health contexts
Getting to know you...

How comfortable are you with theory?
Knowledge Mobilization

“The transfer and exchange of information, research results, and skills from one research institution, organization, or individual, to another to facilitate its uptake and adoption for improvement”
Knowledge...

“The transfer and exchange of information, research results, and skills from one research institution, organization, or individual, to another to facilitate its uptake and adoption for improvement”

But...

Is a lack of knowledge really the limiting factor?
It Depends…

• Knowledge and awareness can be powerful…

• Knowledge of technological innovations…
It Depends…

- Agriculture in the 20th century often followed this curve
It Depends…

• Agriculture in the 20th century often followed this curve

• Some things still do today…
An increasing pace!

In fact, many dramatic innovations are adopted much quicker today...

**CONSUMPTION SPREADS FASTER TODAY**

**PERCENT OF U.S. HOUSEHOLDS**

**SOURCE** Michael Felton, The New York Times

HBR.ORG
But... what about complex change?

Is it lack of knowledge preventing these?
But... what about complex change?

Is it lack of knowledge preventing these?

- It’s not just about adopting a technology... it’s a behaviour
Theory and its uses

“a systematic way of understanding events or situations”

Many types...

Change theory
Learning theory
Explanatory theory
Theory and its uses

“a systematic way of understanding events or situations”

• Change theory: An abstract approach to explaining the factors, and their relationships, that influence behaviour
Theory and its uses

“a systematic way of understanding events or situations”

• An abstract approach to explaining the factors, and their relationships, that influence behaviour

• Theory provides a road map for studying problems, developing appropriate interventions, and evaluating their successes.
Pinpointing the key factors

Factors influencing farmers' animal-health decisions?
KMb Models vs. Theory

- Models and frameworks incorporate theoretical components into a larger ‘actionable’ process for program/intervention delivery

CIHR Model of KT:
KMb Models vs. Theory

- These models tend to prompt you to think about the factors that theories help explain...

Knowledge to Action Process Framework:
Theory at three levels

1. Intrapersonal
   Personal characteristics that influence behaviour

2. Interpersonal
   Group interactions providing support, identity, and defining roles

3. Community level
   Rules, policies and social networks

Behaviour is influenced at each level
Screening for Prostate Cancer

Suppose a man delays getting screened for prostate cancer:

- His inaction may be due to fear of the results, OR, he may be uncomfortable with the procedure

Intrapersonal Factors
Screening for Prostate Cancer

Suppose a man delays getting screened for prostate cancer:

• Maybe his friends haven’t been screened, OR, maybe his doctor hasn’t even recommended early screening.

Interpersonal Factors
Screening for Prostate Cancer

Suppose a man delays getting screened for prostate cancer:

- Maybe it’s hard to schedule an appointment (work and doctor hours), OR, maybe his insurance won’t cover the procedure

Community Factors
Intrapersonal Theory

• Focus on behaviour of the individual
  Knowledge, attitudes, beliefs, motivation, experience, skills, etc.

• Numerous popular theories:
  • Health Belief Model
  • Theory of Planned Behaviour
  • Stages of Change Model
  • Precaution Adoption Process Model
Intrapersonal Theory

Health Belief Model
Designed to understand why individuals would not adopt, or engage in, preventive health behaviours (e.g. STI prevention, routine screening).

- How susceptible am I to the problem?
- How serious are the consequences?
- What are the benefits of the suggested action?
- What barriers deter me from taking action?
- Do I consider it a threat?
- Do I expect the suggested measure to be effective?

Cues to Action
Preventive Behaviour
Self-Efficacy
Interpersonal Theory

- Focus on how individual behaviour is influenced by a social environment

How do the opinions, thoughts, behaviours, advice, etc. of those surrounding an individual influence that person’s feelings toward the behaviour?

- Social Cognitive Theory
  Focuses on reciprocal interactions of people and their environments
Community Theory

- Aim to address individual, group, and community level factors. 
  *Bring in a focus on rules, policy and networks*

- More aligned with KMb frameworks because they address delivery methods, media effects and interactions between individuals, groups and organizations.

- Numerous popular theories
  - Community organization
  - Participatory theories
  - Diffusion of innovations
  - Communication theory
Choosing a theory

There are a lot of theories out there, how do I choose one?
Choosing a theory

There are a lot of theories out there, how do I choose one?

Consider:
• What, if any, theories have been used previously?
• What are the goals of your KMb activity?
• What interactions are most important?
• At what level are you aiming to influence change?
• What factors do you feel are most important to the issue?
Choosing a theory

There are a lot of theories out there, how do I choose one?

Consider:
• What are the goals of your KMb activity?
• What interactions are most important?
• At what level are you aiming to influence change?
• What factors do you feel are most important to the issue?
• What, if any, theories have been used previously?

Crucially:
• Be explicit about your choice and rationalize it!
Theory in context

Influencing on-farm change in the Ontario dairy industry...

Chronic, infectious disease
Influencing on-farm change in the Ontario dairy industry...
Influencing on-farm change in the Ontario dairy industry...
Theory in context

Influencing on-farm change in the Ontario dairy industry...

Can we design and implement an approach that more effectively influences the uptake of on-farm recommendations for Johne’s disease control?
Study Aim: What are the barriers to implementing on-farm recommendations for Johne’s Disease (JD) control for Ontario Dairy Producers?

Theme 1: Barriers to Adoption of JD Control Measures

Subtheme: Physical Resources

- Money
- Infrastructure
- Time
Getting perspective

Study Aim: What are the barriers to implementing on-farm recommendations for Johne’s Disease (JD) control for Ontario Dairy Producers?

Theme 1: Barriers to Adoption of JD Control Measures

Subtheme: Intrinsic Barriers
- Priority
  - Public perception of JD
  - Perception of JD as a problem
  - Motivation to Adopt JD Control Measures

Subtheme: Physical Resources
- Perception of the Practicality of JD Control Recommendations
- Time
- Money
- Infrastructure
Theory of Planned Behaviour

- Describes a series of factors that combine to influence an individual’s decision towards making a behavioural change

A ‘change theory’ that’s straightforward and relevant to my goals
Incorporating learning theory

• Theory-based intervention
  o Grounded in experiential learning and adult learning theory

A ‘learning theory’ that’s appropriate for the audience
Focus Farms

• Provides a producer-centred approach
  o Focusing on peer-learning in a facilitated environment

• Groups of 8-12 dairy producers
  o Committed to a minimum of 4 full-day meetings in 12 months
  o Half day on farm and half day in ‘classroom’ environment
Focus Farms

Five Key Principles

1. Participatory, self-directed and collaborative
2. Honest communication and trust
3. Concrete experience
4. Planning, action and implementation
5. Reflection
Meetings Involved

- Round-table discussions
- Interaction with content experts
- Farm tours
Changes in Knowledge

- Pre-Survey Response: Focus Farm – 52% (91/176); Control – 17% (62/357)
- Post-Survey Response: Focus Farm – 81% (70/86); Control – 85% (52/61)
Theory of Planned Behaviour (TPB)

- Created a survey tool to evaluate the TPB constructs
Theory of Planned Behaviour Results

- Positive Attitude towards making a change, Positive view of pressure to make a change, Negative view of controllability!
So… who made a change!?

Focus Farm Respondents
• 81% (57/70) made at least 1 on-farm management change for JD

Control Respondents
• 38% (20/52) made at least 1 on-farm management change for JD

*p = 0.0002

Most popular changes included:
• Improved dam-calf separation
• Using artificial colostrum and/or milk replacer
• Separate sick pen AND maternity pen
Risk Assessment Results

- Pre-RAMP Response: Focus Farm – 90% (82/91); Control – 76% (47/62)
- Post-RAMP Response: Focus Farm – 91% (78/86); Control – 53% (32/61)
Where do we go from here?

- Focus Farms was an effective theory-based intervention
- Principles empower and facilitate collaboration
Where do we go from here?

- Focus Farms was an effective health promotion intervention
- Principles empower and facilitate collaboration
- Directly transferrable to other public and animal health issues

Theory-based approaches ensure relevance

Evaluation ensures you understand your outcomes

What you want to say. What they're interested in.

Relevance
Where do we go from here?

• Focus Farms was an effective health promotion intervention
• Theory-based approaches add relevance and substance
• Principles empower and facilitate collaboration
• Directly transferrable to other public and animal health issues

Okay… so bottom-up approaches work…

What about the entire population?
Study Aim: What are the barriers to implementing on-farm recommendations for Johne’s Disease (JD) control for Ontario Dairy Producers?

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Subtheme: Physical Resources
- Perception of the Practicality of JD Control Recommendations
- Time
- Infrastructure
- Money
Getting creative

JOHNE'S DISEASE IN CANADIAN DAIRY HERDS

WHAT IT MEANS FOR FARMERS

PARATUBERCULOSIS IN OUR MILK HERDS

WAS DAS FÜR BAUERN BESINDET

JOHNE'S DISEASE IN CANADIAN DAIRY HERDS

VETERINARIANS MOTIVATING CHANGE

PARATUBERCULOSIS IN OUR MILK HERDS

CE QUE CELA SIGNIFIE POUR LES PRODUCTEURS

bit.ly/1KrFdto
Communication Plan

- Video housed in a YouTube Channel: JohnesBoard (#JDBoard)
  - Disseminated through Twitter, LinkedIn, Facebook & Google+

- 30 influential stakeholders identified to create ‘ripple effect’

- Direct email to over 2,000 Ontario dairy producers through DFO

- 8 websites, 7 listservs and 5 key conferences identified
Who’s watching?

~5,400 views on YouTube

- 47% of views coming from Canada
  - 15% U.K., 14% U.S.
  - 19%: Argentina – Ireland – Morocco – Malaysia – Australia
  - 99 countries total!
Who’s watching?

Demographics

Accessibility
Was the message correct?

Academics, students & extension specialist comments:

• Very novel approach to translating scientific information for producers. I feel it will resonate with them, it’s not condescending, concepts are easy to remember. [It] appeals to visual and auditory learners, and is a spin-off of peer-peer education as it is the voice of the producer. A good example of practical approaches.
Was the message correct?

Academics, students & extension specialist comments:
- Very novel approach to translating scientific information for producers. I feel it will resonate with them, it's not condescending, concepts are easy to remember. [It] appeals to visual and auditory learners, and is a spin-off of peer-peer education as it is the voice of the producer. A good example of practical approaches.

Producer comments:
- I liked that you used a more personal/friendly approach and focused on the practical side of things. It’s often helpful to get information from someone you can relate to, rather than hearing stern recommendations from a vet or scientist. I think the practicality and the way you present the message will really help drive the message home in the producer population.
Take-home messages

• Theory isn’t so scary

• Incorporating theory adds relevance and impact
  • For planning, implementation and evaluation!

• Consider your project goals and choose accordingly
  • What level are you focusing on?

• Use it as a guide, not a bible!

• Many practical resources are available
Thank you!
Any Questions?

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Social Media Uptake

- Over 350 tweets, 100 mentions, 80 new followers & 110 retweets
- Over 100 comments from other social media platforms
- Video embedded in 15 agricultural websites
- 27 oral presentations to over 1,500 people to date
- 7 news articles featuring the video
  - 4 more with interviews