Summary
We conducted a longitudinal evaluation of the “Practicing Knowledge Translation (PKT)” course, designed to build implementation practice core competencies in individuals involved in applying healthcare evidence (i.e., implementers). PKT facilitated significant improvements in participants’ use of implementation theories, models, and frameworks (TMFs), and increased their knowledge and self-efficacy in implementation practice core competencies, sustained up to 12 months after course initiation.

Implications
The PKT course offers a model to inform how to develop, deliver, and tailor competency based training initiatives. The identification of core competencies for implementation practice will allow organizations and decision makers to identify and address capacity gaps in practitioners and inform their implementation efforts. Study findings will be relevant to those interested in, or involved with, the development and evaluation of KT training initiatives.

What is the current situation?
- Despite rapid development within the field of implementation science, few KT training initiatives focus on building capacity among implementers to effectively apply implementation science in practice.
- The process and outcomes of training initiatives need to be evaluated to determine how to most effectively facilitate skill development for the practice of implementation.

What did we do?
- We designed the PKT course to train implementers (including clinicians, researchers, healthcare managers, and policy makers) to apply evidence and implementation science in their work. Six implementation practice core competencies were identified through a consensus process to inform course content, which was delivered through in-person workshops and webinars over a six-month period. The training initiative and the evaluation were conducted through St. Michael’s Hospital.
- We used an uncontrolled before and after study design, with convergent parallel mixed methods, to evaluate PKT. The primary outcome was the use of TMFs in participants’ implementation projects. Secondary outcomes were knowledge and self-efficacy across the six core competencies, as well as course satisfaction and contextual factors influencing outcomes.
- 15 PKT course participants consented to participate in the evaluation. Data were collected through survey and semi-structured interviews at multiple time points, up to 12-months after course initiation.

What were the results?
- Participants reported a significant increase ($p = 0.03$) in their application of implementation TMFs in their work.
- Participants identified key barriers to the use of implementation TMFs, including the complexity of KT concepts and the degree of support received from their organization.
- Participants reported a significant increase in knowledge and self-efficacy in almost all core KT competencies (for e.g., significantly higher knowledge ($p < 0.001$) and self-efficacy ($p < 0.001$) in evidence implementation). By 6 months, participants perceived to have shifted from having a theoretical to a practical understanding of how to apply KT concepts to their work. Factors influencing changes in self-efficacy included the guidance of KT experts and opportunities to apply course content to their work.


Available from: https://doi.org/10.1186/s13012-018-0800-3

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Funded by the Knowledge Translation Program