Intersectionality & Knowledge Translation (KT)

Selecting and Tailoring KT Interventions Workbook

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Introduction

Who is this workbook for?

Knowledge translation (KT) intervention developers. KT is the process of moving evidence into health care practice.[1] KT intervention developers are people who create KT interventions designed to improve health care.

For example, an intervention developer may design a KT intervention to encourage physiotherapists to use a patient physical activity program. The KT intervention may include restructuring physiotherapists' workflow and delivering in-person education sessions.

Project managers responsible for selecting and tailoring KT interventions would find this workbook particularly useful.

Why should I use this workbook?

This workbook is essential because it provides a structured way to consider key elements of selecting and tailoring a KT intervention with an intersectional lens.

By applying an inclusive and equitable lens to KT interventions, you can design more effective interventions that address the complex realities of the people you work with.[2-5] For more, see section on "Why should I consider intersectionality when selecting and tailoring KT interventions".

What is the purpose of this workbook? When do I use it?

This tool relates to the "Select, Tailor, and Implement KT Interventions" stage of the Knowledge-to-Action (KTA) Cycle.[6] In particular, it focuses on selecting and tailoring interventions. **Appendix A** outlines additional resources on implementing KT interventions.

When thinking about selecting, tailoring, and implementing KT strategies, you can also think about evaluating your efforts. This tool is part of a set of tools that will help you take an intersectional approach when doing KT.

Who made this workbook?

This tool was collaboratively developed in an iterative fashion by an interdisciplinary team of KT scholars, KT intervention developers, intersectionality scholars, and adult education experts.

How do I use this workbook?

This workbook should be used as a resource and discussion tool. It is meant to prompt reflection; it is not meant to be prescriptive.

Each person working on the KT project can work through their own copy of the workbook. If team members feel comfortable, they can share and discuss their responses with the team.

The workbook contains reference materials, examples, and activities.

As you work through this workbook, you will review the case example of the Mobilization of Vulnerable Elders (MOVE) project.[7] Although the overall MOVE project is a real-life example, the scenarios describing the experiences of "Unit 2A" are not real and have been crafted for the purposes of this workbook.

Project limitations

See Appendix B for a project limitation statement.

This tool cannot be broadly applied to Indigenous Peoples, and there may be more culturally appropriate models, theories, and frameworks that are useful to consider when conducting projects that involve Indigenous communities.

For more information

This tool is part of a set of tools that help us take an intersectional approach when doing KT. Consult the tools below for more information on key topics.

- Intersectionality, definitions, and running a KT project with an intersectional approach: Intersectionality Guide.
- An intersectional approach to identifying knowledge-to-practice gap(s) and practice change(s) to fill these gaps: Reflection Workbook.
- An intersectional approach to conducting a barriers and facilitators assessment: Guide for Common Approaches to Assessing Barriers & Facilitators to Knowledge Use.

Key terms

Intersectionality* is a way of looking at the world that recognizes that people's experiences are shaped by a combination of social factors, including their gender, racialization, age, among others.[8-14] These experiences occur within and interact with connected systems and structures of power, such as sexism and racismm.[8-14]

Note that there are various definitions of intersectionality and that they are evolving.

Intersecting categories include age, gender identity, sex, and other aspects of one's lived experience. These aspects interact to form a person's identity (See Figure 1)..[3,13,14] One's intersecting identities reflect larger systems of oppression/privilege (e.g., sexism, ageism).[3,13,14]

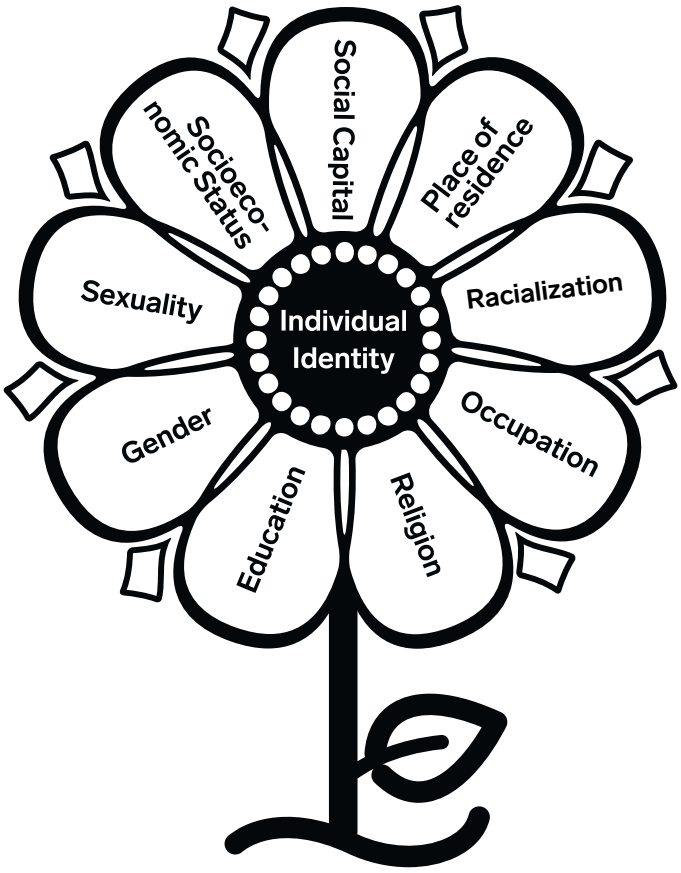


Figure 1. Visual representation of some intersecting categories.[13,15,16] The categories mentioned in this figure are not an exhaustive list.

Knowledge translation is the process of getting evidence used in practice.[1]

Selecting a KT intervention is the process of choosing which KT intervention(s) will be used to get evidence used in practice.

Tailoring a KT intervention is the process of adapting a KT intervention(s) to a specific context.

Reflections before using this tool

Consider the intersecting categories that make up your identity, your team's identity, and those of your target audience. Reflect on how acknowledging unique experiences is important in developing an effective KT intervention.

Explore your biases (your preconceived judgments for or against a particular individual or group).[17] See these free resources:

- **Harvard** - Project Implicit: https://tinyurl.com/6yyyc[18]
- **Government of Canada** - Unconscious bias training module https://tinyurl.com/yacj5ao3[19]
- **EdX** - Unconscious Bias: From Awareness to Action https://tinyurl.com/yxk5lmb2[20]

It is important to plan for sustainability when selecting and tailoring an intervention. Sustainability is the continuation of an intervention to achieve desired long-term change. For more on sustainability, visit https://tinyurl.com/y4vnwj5j[21]

Please note: Taking an intersectional approach is needed to recognize the importance of individuals' social identities within the greater context of systems and structures of power. These reflect macro systems of privilege and oppression. Keep in mind that recognizing areas of advantage, disadvantage, and oppression may bring up feelings of confusion, guilt, distress, among others. It is okay to feel uncomfortable. There is a difference between feeling uncomfortable and unsafe.

Why should I consider intersectionality when selecting and tailoring KT interventions?

There are many intersectionality considerations that influence the success of a KT intervention. You can select and tailor KT interventions to be more effective by being mindful of these factors.

The factors and examples below are key elements to consider when building a KT intervention:

Sociopolitical[22]	• Laws (e.g., Canadian Human Rights Act) • Historical context (e.g., slavery) • Political context (e.g., what political group is in power) • Societal/cultural norms (e.g., different health-seeking behaviours displayed by people from different cultures/ countries)
Organization/Setting[22] *each organization has its own culture*	• Available resources (e.g., funds, technology) • Competing demands or mandates (e.g., pressure to cut costs) • Billing constraints (e.g., ability to bill for certain International Classification of Disesases codes) • Cultural norms (e.g., learning)
Provider[22] *e.g., nurse, educator, physician*	Examples of intersecting categories: • Ethnicity • Gender identity • Spoken languages • Previous training and skills • Religion • Cultural beliefs
Recipient[22] *e.g., patient group*	Examples of intersecting categories: • Ethnicity • Literacy • Education level • Spoken languages • Immigration/legal status • Crisis or emergent circumstances • Religion • Access to resources • Disability • Racialization • Gender • Sexuality • Sex

Mobilization of Vulnerable Elders (MOVE) case example[7]

Identifying the Problem:

In the late 2000s, the Division of Geriatric Medicine at the University of Toronto, along with collaborators, reviewed evidence relating to successful aging.[7] The team noted that keeping older adults physically active while in hospital improved older adults' functional status after they left the hospital.[7]

After reviewing administrative data, the Geriatric Medicine team found that many elderly patients admitted to acute care hospitals in Ontario were confined to their beds or chairs while in the hospital.[7] Accordingly, the Geriatric Medicine team identified the problem of not keeping older adults physically active while in hospital.[7]

The Geriatric Medicine team, along with staff at four Ontario hospitals, formed a KT intervention development team to address this problem in different units across four hospitals.

Two older adults walking in a park. Both have smiles on their faces and one is pushing a bike. In: Word, Microsoft Office Professional Plus, version 14.0.7232.5000, Microsoft, 2010.

Defining the Evidence-to-Practice Gap and Selecting Practice Changes on Unit 2A:

From a chart review of older adults admitted to Unit 2A, the KT intervention development team noted that 40% of older adults admitted to the unit were not physically active.

To increase rates of physical activity among older adults admitted to Unit 2A, the Geriatric Medicine team identified asessing mobility within 24 hours of a patient's admission as a practice change from credible evidence.[7]

Linking Barriers and Facilitators to KT Interventions on Unit 2A

At each of the four hospitals, the KT intervention development team investigated the barriers and facilitators for different practice changes on different hospital units. The KT intervention development team used surveys and interviews with relevant individuals, including nurses on different hospital units.

For Unit 2A at one hospital, the largest barrier to the practice change of assessing patients' mobility within 24 hours of admission was nurses' beliefs about what happens when older adults are mobilized. Specifically, nurses believed that if they mobilized older patients on their unit, the patients would be more likely to fall. The nurses did not want to cause harm and wanted to adhere to the hospital's falls prevention policies. Knowing this barrier, the KT intervention development team selected and tailored a KT intervention to target nurses' beliefs about the consequences of mobilization.

Within this workbook, you will explore the process the KT intervention development team used to select and tailor a KT intervention.

Although the KT intervention development team identified a suite of barriers and facilitators that need to be considered, this workbook will focus on one barrier - nurses' beliefs about what happens when older adults are physically active in hospitals.

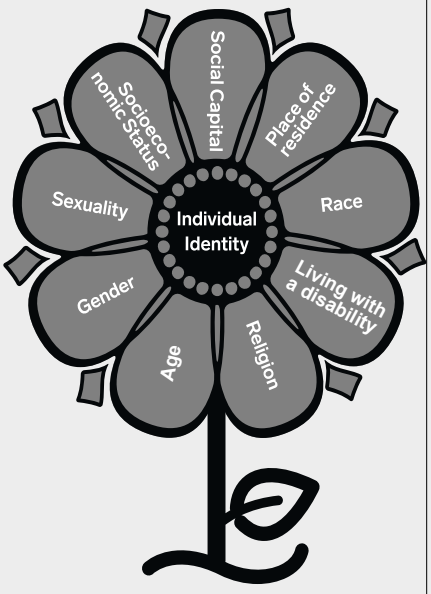
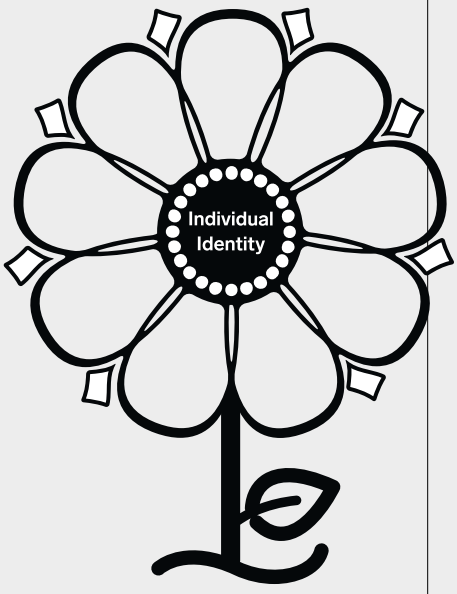
Activity 1: Clarifying the "what" and "who" for your KT project with an intersectional lens[23]

Begin this workbook by reflecting on questions related to your current project. Fill in the blank third column, and be as specific as possible.

The MOVE case example is included for reference in the middle column on how you can answer the questions outlined in the first column.

What is the current practice?	Patients' mobility is not assessed upon admission or within 24 hours of admission. Mobility may be assessed at a later point for specific clinical cases.	
What is the behaviour you want to change?* **How will the current practice be changed:** • **Stopped** • **Replaced** • **Modified** • **Added to**	Assessing mobility within 24 hours of a patient's admission. The current practice will be modified.	

*A KT project may involve multiple practice changes. Fill out this table for each practice change.

Questions to Ask	Mobilization of Vulnerable Elders (MOVE) Case Example (Unit 2A)	Your KT Project
Who is changing their behaviour?**	Nurses	
What are key intersecting categories as identified by those expected to change their behaviour? Refer to Figure 1 for a conceptualization of intersecting categories. *Note that the number of intersecting categories to consider will depend on the project.* *For more information on exploring intersecting categories, please visit the* Intersectionality Guide		 Fill in the blank petals with relevant intersecting categories of the indviduals changing their behaviour.

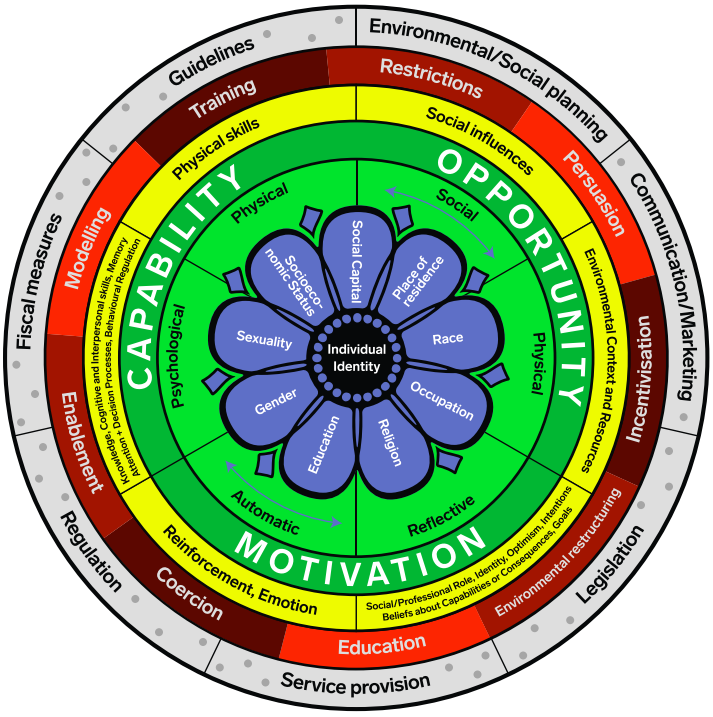
**There can be many "whos" (e.g., nurses, doctors, administrators, patients). Complete a table for each group that will be making a behaviour change.

Selecting KT interventions

The selected KT intervention(s) should directly address the barriers and facilitators to knowledge use that you have identified.

You can use a behaviour change theory to identify KT interventions that address the barriers and facilitators to knowledge use that you have identified.

For example, you can use the Intersectionality-Enhanced Behaviour Change Wheel (BCW; Figure 2).



Behaviour Change Wheel Legend

Intersecting Categories of Individuals Expected to Change Their Behaviour*
Sources of Behaviour
Theoretical Domains Framework
Intervention Functions
Policy Categories

*Because these categories and their interactions are not static, only this layer rotates. The intersecting categories depicted in the flower are not an exhaustive list. Reflect on what intersecting categories may be relevant for each situation.

Figure 2. Intersectionality-Enhanced Behaviour Change Wheel[24,25]

You can use the BCW to select KT interventions that best target specific barriers and facilitators to behaviour change. When using the BCW, you first reflect on constructs in the middle of the wheel. Then, you move outwards.

The BCW has one mobile layer and four stationary layers, including the following:

1. The **intersecting categories** layer is placed at the center of the BCW. Because all layers of the BCW are influenced by intersecting categories, a user must first consider individual identities and intersecting categories.
   - The budding "petals" on the outside of the image signify that there are intersecting categories you may not be aware of.
   - Because intersecting categories and their interactions are not static, this layer rotates.
2. The **capability, opportunity, and motivation (COM-B)** layer outlines the central "behaviour system," which highlights the three essential factors that generate behaviour.
3. The **theoretical domains framework (TDF) layer** outlines the cognitive, affective, social, and environmental barriers and facilitators to behaviour change.
4. The **intervention functions** layer outlines KT interventions that are likely to target the barriers/facilitators established in previous layers.
5. The **policy categories** layer outlines the type of policies that can support the implementation of the selected KT intervention(s).

For example, from a barriers/facilitators assessment, you know that **education and disability** impact nurses' **physical capability** to do a behaviour. Moving from the center of the BCW outwards, you identify the TDF domain of **physical skills** as a barrier to behaviour change. Accordingly, you consider **training** as a KT intervention function that is likely to address this barrier. If you are investigating policy categories, you could consider **guidelines**.

For more information

For more on selecting behaviour change technique(s), consult Michie, Atkins, and West (2014) The Behaviour Change Wheel: A guide to designing interventions.[24]

To read more about the creation of the Behaviour Change Wheel, visit http://tinyurl.com/yxvn26z9[26]

Note that as you work on selecting a KT intervention, you should also plan your evaluation and the sustainability of the intervention. For more information on evaluation, see the RE-AIM framework, a commonly used framework in evaluation: https://tinyurl.com/y5wsta5o[27]

Team Reflection

There are often multiple KT interventions you can select, take a moment to reflect:

- How will your team prioritize KT interventions?
- How wil your team consider the intersecting categories of the individuals changing their behaviour?
- How will your team consider systems and structures of power that impact the behaviour change?

For more information on popular prioritization techniques, visit: https://tinyurl.com/snwws6p[28]

Selecting KT Interventions: Mobilization of Vulnerable Elders (MOVE) Case Example[7]

Using the intersectionality-enhanced behaviour change wheel (Figure 2), Unit 2A's KT intervention development team mapped the barrier "beliefs about consequences" to the intervention functions "environmental restructuring" and "education."

From the barriers and facilitators interviews with nurses on the unit, the KT intervention development team also noted that the nurses' intersecting categories of age and education level were particularly important. Nurses who identified as younger held a strong belief that moving older adults would result in more falls. Nurses who had completed graduate school training were less likely to hold this belief.

Activity 2: Summarizing barriers, facilitators, and intersectionality considerations for your KT project

Fill in the blank column related to your KT project. Be as specific as possible.

What barriers to behaviour change did you identify? These can be identified through knowledge syntheses, conversations with stakeholders, interviews/focus groups, surveys, and observations. For more information, see the Guide for Common Approaches to Assessing Barriers & Facilitators to Knowledge Use.	Belief that mobilizing patients will lead to more falls.	
Who is changing their behaviour?*	Unit 2A nurses	
What does an intersectional approach tell us about these barriers? Think through how you can identify barriers and their related context	The education system (e.g., undergraduate nursing education) and organizational context (e.g., falls prevention policies at the hospital) support the belief that mobilizing patients will lead to patients falling. Middle-aged female nurses, who have historically held roles as caregivers to aging relatives, share stories of how mobilizing family members has led to falls.	
What facilitators to knowledge use did you identify?	Nurses' desire to improve patient outcomes. Nurses' desire to be in compliance with hospital's falls prevention policies.	
What does an intersectional approach tell us about these facilitators?	Nurses' motivation to provide quality care is driven by the intersection of their professional role, individual values, and societal norms. Nurses' role as paid employees of the organization impacts their desire to comply with existing organizational mandates (e.g., falls prevention initiatives).	

*There can be many "whos" (e.g., nurses, doctors, administrators, people with lived experiences). Complete a table for each group that will be making a behaviour change.

When selecting a KT intervention, consider the APEASE criteria[29]

When reviewing and selecting KT interventions, you need to consider each intervention's affordability, practicability, effectiveness/cost-effectiveness, acceptability, side effects/safety, and equity (APEASE).[29]

You can also consider each of the APEASE criteria with an intersectional lens. Exploring these considerations may involve additional conversations with members of the implementation team; members of the group(s) changing their behaviour, which may include patients; and organizational leadership, among others.

Affordability	Can it be delivered on budget?[29]	Are budgets for accommodations (e.g., American Sign Language [ASL] interpreters, bus tickets, and translators) included in the budget?
Practicability	Can it be delivered as designed?[29]	Is the intervention suitable for participants with a range of intersecting categories (e.g., living with a disability)? Do these individuals perceive the intervention as practical?
Effectiveness and Cost-Effectiveness	Does it work (is the effect to cost ratio worth it)?[29]	Is the intervention effective for individuals who represent a range of intersecting categories?
Acceptability	Is it appropriate from the perspective of stakeholders (including those changing their behaviour, patients, and organizational leadership)?[29]	Can the intervention be tailored to individuals with a range of intersecting categories?
Side Effects/Safety	Are there unintended side effects or safety concerns?[29]	Are there safety concerns for individuals from certain groups?
Equity	Will it impact disparities in health and well-being? Is the impact likely to be positive or negative?[29]	Has the impact of the intervention been considered for individuals with different intersecting categories (e.g., how the intervention impacts a racialized queer woman vs. a male with a physical disability)?

Case example

Selecting KT interventions using APEASE: Mobilization of Vulnerable Elders (MOVE)

After the intervention function "education" was established as important in forming beliefs about the consequences of mobilization, the KT intervention development team explored a range of education intervention options.

By speaking with a colleague who worked on the MOVE KT intervention development team for another unit, the KT intervention team for Unit 2A learned about online evidence-based educational materials (including learning modules, handouts, and educational materials) on mobilization and its benefits.

The KT intervention development team for Unit 2A applied the APEASE criteria for the available e-learning modules (see table below). Four nurses were interviewed to understand the APEASE criteria through an intersectional lens.

Affordability	Because the e-learning modules had already been created, the KT intervention fit within the KT intervention development team's budget. There are two nurses who have vision difficulties. The e-learning module is provided in large font size and compatible with screen readers, which enables their participation.
Practicability	E-learning modules can be reasonably completed in the number of professional development hours allotted for nurses. Some nurses work flexible schedules to meet caregiving needs (e.g., leave one hour early every other shift to care for a family member). Modules can be stopped and started to fit these flexible schedules. The e-learning modules are also compatible with the computers on Unit 2A.
Effectiveness and Cost-Effectiveness	By contacting the MOVE Canada research coordinators, the KT intervention development team for Unit 2A discovered that the e-learning module had been shown to be effective for changing beliefs about the consequences of movement among individuals working in other units. Other units also identified that hospital administrators had found the modules to be a cost-effective strategy.
Acceptability	Nurses on Unit 2A routinely complete online learning modules for training purposes.
Side Effects/Safety	Some nurses on Unit 2A have experienced vision difficulties when looking at computer screens for extended periods of time. The KT intervention development team confirmed that the modules can be started/stopped based on participants' preference. An individual can start/stop a module as many times as they would like within one calendar year of starting.
Equity	The course is provided in English only and features examples from mostly white, female nurses. The KT implementation team believes that not all nurses will identify with the examples given. Some nurses have difficulty hearing, although the module is available with captions. All nurses speak English, but some take more time than others to read English text. All nurses have computer access to hospital library computers.

Activity 3: Selecting KT interventions for your project using APEASE[29]

Fill in the blank columns related to the APEASE criteria for your KT project.[29] You can use the intersectionality considerations outlined in the third column to help think through each APEASE criterion.

If there is more than one KT intervention you are considering, fill out the table below for each of these KT interventions. Be as specific as possible.

Affordability	The e-learning module is provided in large font size and is compatible with screen readers, which enables everyone's participation.	
Practicability	E-learning modules can be finished based on the flexible schedule needs of staff (e.g., family caregiving needs).	
Effectiveness and Cost-Effectiveness	Hospital administrators viewed e-learning modules as a cost-effective method to change individual behaviours.	
Acceptability	Nurses on Unit 2A routinely complete online learning modules for training purposes.	
Side Effects/Safety	Some nurses have vision difficulties. An individual can start/stop a module as many times as they would like within one calendar year of starting.	
Equity	Library computers at the hospital are accessible to all nurses, and captions are provided in the modules.	

Tailoring KT interventions

Once you have selected your KT intervention, you need to tailor it to your project. Tailoring a KT intervention is a planned personalization for a specific context. For example, it can be to create educational materials in English and French to fit clinicians' language skills.[30]

Using an intersectional lens, you can tailor interventions to be more affordable, practical, effective/cost-effective, acceptable, safe, and equitable (APEASE).[22,25,29]

While tailoring your KT interventions, consider the context of connected systems and structures of power (e.g., laws, the media) that interact with and influence the intersecting categories of the individuals involved.

Who to tailor for?

Patient Level	Using diagrams or visual materials to outline examples of exercises suitable for patients in a hospital who speak English as an additional language.	Are there key intersecting categories (e.g., age, gender, and location) that are relevant to tailor examples to? How can you make these examples more inclusive? What can you do to redistribute power in the discussion between those in the intervention? What assumptions are you making about the patient experience? If you cannot tailor to each subgroup, how will you prioritize which subgroups to tailor to?
Practitioner Level	A specific psychotherapist who specializes in cognitive behavioural therapy (CBT) does not use a printed version of a goal-setting sheet when seeing patients.	How does an individual's intersecting categories influence their work? How can you support every practitioner's participation in the intervention?
Organization Level	A physiotherapy clinic does not offer 45-minute sessions. It offers 30-minute sessions.	Is there a way that the clinic/unit is structured that may benefit certain practitioners or patients? For example, the organization has a norm of "being consistent in the office," which penalizes those who use flexible hours for their caregiving roles.

Level of Tailoring[22]	Example[22]	Examples of Intersectionality Considerations
Network Level	A group of community clinics has the same amount of protected time for professional development. Educational KT interventions must fit within this amount of time.	Though everyone in the network is granted the same amount of protected time, compared to older physicians, do younger nurses across the network use this protected time? What social structures might impact staff's utilization of protected time?
System Level	The **Accessibility for Ontarians with Disabilities Act** requires all Ontario hospitals to make general accessibility provisions.	How do overt and hidden societal biases impact the implementation of legislation like The Accessibility for Ontarians with Disabilities Act? How is this legislation enforced? How do these societal biases impact knowledge use? For example, does society respect the role of allied health professionals, such as physiotherapists?

Content: Changes made to the content of the KT intervention.[22]	**Context**: Changes made to the way the overall KT intervention is delivered.[22]
Types of content tailoring[22]: • Adding elements • Removing/skipping elements • Shortening or lengthening the intervention (changing pacing or timing) • Substituting elements • Reordering intervention modules or segments • Repeating intervention modules or segments • Integrating the intervention into another framework • Integrating another treatment into the intervention (e.g., integrating a quality improvement (QI) intervention into a KT intervention) • Others, as applicable to each project	Types of context tailoring[22]: • **Format** E.g., an intervention designed to be used in a one-on-one format is now delivered in a group format. • **Setting** E.g., an intervention designed to be used in a mental health clinic is now delivered in primary care. • **Personnel** E.g., an intervention designed to be administered by a family doctor is now delivered by a pharmacist. • **Population** E.g., an intervention developed for an adolescent population is now used for a population in their mid-thirties.

Case example

Tailoring: Mobilization of Vulnerable Elders (MOVE)

Using an online survey tool, the Unit 2A KT intervention development team asked nurses to anonymously share what they thought could make the e-learning modules better for their context. The main suggestions were to provide additional examples that represented case examples from their unit. In addition, younger nurses suggested that the bias that older adults are frail and immobile before hospital admission needed to be addressed in these examples. The nurses also suggested that modules be completed in close succession so that content from previous modules could be recalled more easily. For example complete all modules within six weeks instead of one module every month.

Using a subset of four nurses, the KT intervention development team tested the first two modules from the planned course. The nurses provided suggestions on how to improve the delivery, including ensuring that computer screens are at full brightness, integrating the training with the hospital's existing falls prevention projects, and using examples of patients who were less critically ill than those currently included in the module. The KT intervention development team for Unit 2A explored various elements of tailoring (see table below):

Content[22]	• Adding elements: i. including background information that contains examples of patients who were active before hospital admission to mitigate bias that older adults are frail ii. including case examples of patients who are not as critically ill iii. including case examples of nurses with a range of intersecting categories (e.g., a female nurse who wears a visible religious symbol and speaks with an accent) iv. including explanations of how the practice change activities fit with current hospital practices in falls prevention v. including intersectionality examples (e.g., elderly patient whose son is responsible for making decisions about her care and who does not want his mother to move because of their cultural beliefs) • Pacing — shortening the length of time between the e-learning modules so that they can be completed in a shorter overall time period • Integrating the intervention into another initiative — addressing how this KT project fits with the hospital's current falls prevention activities. Two introduction slides on this were added to the beginning of the module.
Context[22]	• Format — providing audio description for video content • Setting — allow access to modules from remote laptops • Personnel — all members of the intervention team can access the modules

What to tailor[22]	
Patient Level[22]	Not applicable. The intervention is directed at the provider level.
Practitioner Level[22]	Based on the notes provided at the beginning of the module, individuals can tailor the screen brightness and duration preference so that they can start/stop when they want.
Organization Level[22]	Coordinate with the IT department to install software to make learning modules accessible on remote laptops on Unit 2A instead of just in the hospital library. Plan with the hospital to allocate a room where nurses can complete the modules in a quiet space.
Network Level[22]	Provide extended protected time for professional development to ensure learning is accessible to everyone.
System Level[22]	The **Accessibility for Ontarians with Disabilities Act** requires all Ontario hospitals to make general accessibility provisions. For example, organizations must train staff, volunteers, and contractors on communicating with persons with disabilities. In accordance with the Accessibility for Ontarians with Disabilities Act, all text within the module was pre-recorded in an audio format

Activity 4: Tailoring KT interventions for your project

Fill in the blank column to describe the different ways you can tailor the KT intervention selected for your KT project. When doing this, you can keep both intersectional considerations and APEASE considerations in mind. Using an intersectional lens, you can tailor KT interventions to each of the APEASE criteria.[29] Be as specific as possible.

What to tailor? [22] (Keep in mind that you can modify the content or context)		
Patient Level[22]	What can you do to redistribute power? How can you tailor examples to be more inclusive?	
Practitioner Level[22]	How can you support every nurses' participation in the intervention?	
Organization Level[22]	Is there a way that the organization is structured that may benefit certain nurses or patients?	
Network Level[22]	How do social structures impact informal communication systems across the network?	
System Level[22]	How has/does the education system impact knowledge use? What historical considerations must you reflect on? How do societal biases impact knowledge use?	

Consider the APEASE criteria at all levels: **A**ffordability, **P**racticality, **E**ffectiveness and Cost-Effectiveness, **A**cceptability, **S**ide Effects/Safety, **E**quity

Once you have selected and tailored KT strategies:

After you have selected KT intervention strategies that explicitly address barriers and facilitators to change, you can strategically plan how to operationalize these strategies to achieve your desired outome(s).

Before you and your team implement your KT strategies, reflect:

- Did all members of the KT intervention development team have the opportunity to share their thoughts?
- Were members of the group changing their behaviour (e.g., nurses on Unit 2A) involved in selecting and tailoring KT interventions?
- How did the KT intervention development team consider the intesrecting categories of those changing their behaviour?
- How did the KT intervention development team consider systems and structures of power that impact the behaviour change?

Please see **Appendix A** for more information on implementing KT strategies.

For practical resources on project management, see the **Intersectionality Guide**.

Recording and reporting what you implemented

It is important to record what you and your team have done when implementing a KT intervention to enhance transparency and allow others to use what you have learned. Reporting is useful to identify areas for future improvement, replication, and intervention evaluation among others.

In particular, it is important to document and disseminate information about knowledge gaps on underrepresented perspectives. This highlights areas for future research and calls attention to voices not typically represented in KT interventions, such as racialized women.

When recording and reporting the implementation of your KT intervention, you can use the Template for Intervention Description and Replication (TIDieR) framework.[31]

For a guide to using TIDieR, visit **Cotterill et al. (2018) The TIDieR Checklist:** https://tinyurl.com/yyzktlhf[32]

For links to TIDieR in other languages, visit **Hoffman et al. (2014) Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide:** https://tinyurl.com/y4a6tfcd[30]

For examples on how other projects have used TIDieR, visit **Cotterill et al. (2018) Examples of different formats which can be used to describe and/or provide study intervention materials:** https://tinyurl.com/y6blcujm[32]

For a video on how TIDieR was developed, visit **Hoffman et al. (2014) Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide:** https://tinyurl.com/y6786amu[30]

Appendix A: Implementing KT Interventions

You can use the following table to outline how you will operationalize your implementation strategy:

Name of implementation strategy[33]	Audit and Feedback	
Define implementation strategy[33]	Emailed reports sent to physicians outlining the number of prescriptions they made for a specific medication	
Specify it: the actor[33] • What intersecting categories do you need to be mindful of?	The implementation team coordinator will send out the reports from a team-based email account. She identifies as an early-career researcher and is not in a position of power in relation to the physicians she is emailing.	
Specify it: the action[33] • What assumptions are you making about the action?	Sending emailed reports. I am assuming that physicians all use their hospital email account to conduct work and that they access their email only when on-site.	
Specify it: the action target[33] • What intersecting categories do you need to be mindful of?	Family physicians. Key intersecting categories include technology literacy, gender identity, and location of training.	
Temporality[33]	Reports sent once a week	
Dose[33]	Reports contain 3 metrics related to the specific medication	
Implementation support components required[33] • Training • Tools • Technical Assistance • Quality Assurance	Training for implementation team coordinator to prepare reports; organizing access to electronic medical records to pull audit data.	
Implementation outcome affected[33]	By using Audit and Feedback, I hope to decrease over-prescribing of this medication.	

Appendix B: Project Limitations

We acknowledge that the work of our Canadian Institutes of Health (CIHR)-funded team grant was conducted on unceded lands that were the traditional territories of many people, including the Algonquin, Cree, Dakota, Dene, Huron-Wendat, Mississaugas of the Credit River, and the Musqueam Peoples, and on the homeland of the Métis Nation. We acknowledge the harms of the past and the harms that are ongoing. We are grateful for the generous opportunities to conduct work on these lands.

In 2017, the CIHR launched an opportunity for team grants in gender and KT. This opportunity (sponsored by the Institute of Gender and Health) was developed to recognize that the field of KT had yet to thoughtfully integrate gender into its research agenda. The objectives of the CIHR team grant competition were to generate evidence about whether applying sex- and gender-based analysis to KT interventions involving human participants improves effectiveness, thereby contributing to improved health outcomes; contribute to a broader knowledge base on how to effectively and appropriately integrate gender into KT interventions; and facilitate the consideration and development of gender-transformative approaches in KT interventions.

In response to this call, we submitted a grant aimed at helping KT intervention developers use an intersectional approach when designing and implementing interventions to address the needs of older adults. We received feedback from the CIHR peer review committee that substantial concern was raised about our focus on intersectionality. In particular, the Scientific Officer's notes described that the focus on intersectionality would dilute the focus on gender and needed to be reconsidered. A meeting was subsequently held with the successfully funded team and this issue was raised again. We acknowledge the limitation that our intersectional approach comes at the expense of a minimized focus on gender. However, because intersecting categories, such as gender and age, are experienced together, we ultimately elected to use an intersectional approach as it encapsulates the lived experience of those we aim to impact.

A more significant limitation of our work is that we did not include First Nations, Inuit, and Métis community members in the grant proposal. As such, their needs and perspectives were not included in the research grant and, consequently, funded activities. Our team did not have established relationships or expertise in this area and as such, we felt it was inappropriate for our team to work on a grant in this area.

We strongly believe that consideration of gender and KT for Indigenous peoples should be a primary focus of a distinct team grant.

There are established best practices for community engagement with First Nations, Inuit, and Métis Peoples that begin with principles of collaboration, which take time to develop and must not be tokenistic. The principles for collaboration should ensure authentic engagement, shared respect, trust, and commitment to ensure long-term, mutually empowered relationships. These principles should also ensure that the research-related priorities meet the needs, perspectives, and expectations of the First Nations, Inuit, and Métis Peoples. Indigenous peoples have a long history of conducting research, and this tradition continues today with many Indigenous healers and scholars leading research in various areas. Indeed, there are many Indigenous scholars working in the KT field.

Because the team's work did not include First Nations, Inuit, and Métis Peoples and involve adhering to the principles that guide their engagement in research, the needs and considerations of these Peoples were not included in the work conducted in this team grant. As such, anyone who is considering using the outputs of this team grant needs to know that **they cannot be broadly applied to these Peoples and there may be other more culturally appropriate models/theories/frameworks that are useful to consider.** Similarly, because this research focused on older adults (and in particular, chronic disease management in older adults) **it does not apply to children and youth**.

We believe that any KT intervention work needs to begin with engaging the appropriate community and is only applicable when those communities are engaged throughout the research enterprise. Moreover, intersectionality involves deep immersion in the lived experiences and priorities of those communities. As a result, KT work requires immersive work with various populations and not just key informants to ensure the work meets the needs of the relevant populations.

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