Intersectionality & Knowledge Translation (KT)

Guide for Common Approaches to Assessing Barriers & Facilitators to Knowledge Use

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Introduction

Who is this guide 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, a KT intervention developer may design a KT intervention to change how often nurses encourage patients to exercise in long-term care homes. The KT intervention may include restructuring nurses' workflow and delivering in-person education sessions.

Project managers responsible for conducting a barriers and facilitators assessment would find this tool particularly useful.

Why should I use this guide?

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]

Intersectionality considerations are complex. This tool is meant to prompt individuals to be more thoughtful about intersectionality when conducting barriers and facilitators assessments. Please explore the included resources for more comprehensive information.

Why are certain approaches featured in this guide?

This guide covers considerations for popular approaches for assessing barriers and facilitators to knowledge use. A group of KT practitioners highlighted these approaches as ones they frequently used.

Knowledge synthesis is the first approach highlighted in this tool because KT interventions should first look at established evidence. These are not the only approaches to assessing barriers and facilitators. In practice, any mix of these approaches and others may be used.

What is the purpose of this guide?

This tool outlines prompts to consider when designing, conducting, and analyzing barriers and facilitator assessments. It relates to the "assess barriers and facilitators to knowledge use" stage of the Knowledge-to-Action (KTA) Cycle.[6]

When do I use it?

Use this tool to assess barriers and facilitators whether you are using the KTA or any other model that makes sense for your project. This tool is part of a set of tools that help us take an intersectional approach when doing KT:

- Running a KT project with an intersectional approach: Intersectionality Guide.
- An intersectional approach to problem identification, defining knowledge-to-practice gaps, and identifying practice changes to fill these gaps: Reflection Workbook.
- An intersectional approach to selecting and tailoring KT interventions using the results of a barriers and facilitators assessment: Selecting and Tailoring KT Interventions Workbook.

How do I use this guide?

Use it as a reference guide. It is meant to prompt reflection; it is not meant to be prescriptive. Everyone on the implementation team can review these considerations individually and as a team.

Who made this guide?

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.

Project limitations

See Appendix A 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.

Key terms

Please note that the key terms discussed on this page provide only a quick overview of intersectionality and KT. For more information, refer to the [Intersectionality Guide](#), which outlines the following:

- Resources to reflect on power and team dynamics
- Intersectionality and intersecting categories
- Knowledge translation and the Knowledge-to-Action (KTA) Cycle

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.[7-13] These experiences occur within and interact with a context of connected systems and structures of power, such as sexism and racism.[7-13]

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).[3,12,13] One's intersecting categories reflect larger systems of oppression/privilege (e.g., sexism, ageism)[3,12,13]
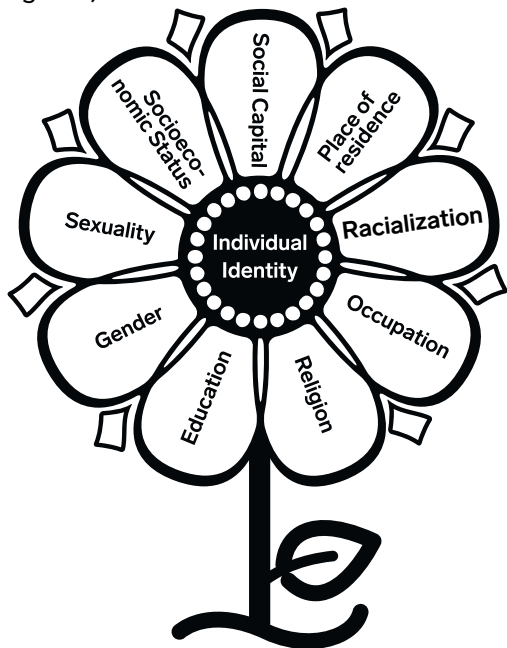
Figure 1. Visual representation of some intersecting categories.[12,14,15] The categories mentioned in this figure are not an exhaustive list.

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

Barriers and facilitators are factors that impede or enable knowledge uptake, respectively.

Evidence is broadly defined in this tool as information that originates from research and is derived through scientific evaluation. As a group, you may define evidence differently. As an implementation team, reflect on the following:

☐ What your team defines as evidence

☐ What your team defines as high-quality evidence

☐ What your target audience defines as credible evidence

How do I take an intersectional approach to KT?

Intervention developers can take an intersectional approach to KT by considering the dynamic nature of social identities and their interactions with social structures and systems that may oppress or privilege different groups.

These social identities and their interactions can be considered at all stages of the KT process. When doing this, you can think about the people designing (e.g., KT intervention developers) and receiving (e.g., clinicians) the KT intervention and those affected by it (e.g., people with lived experiences).

By taking an intersectional approach in your work, you can identify the root causes of inequities, overcome conceptual gaps, and consider complex factors together to create an effective KT intervention. [2-5]

General resources

Consult the resources below for more information on key topics.

For more on building a business case for a barriers and facilitators assessment as part of a full KT project, visit **RNAO (2012) Toolkit:** https://tinyurl.com/yyu5zq7z[16]

Budgeting resources

Determine what resources are available in the project budget for assessing barriers and facilitators to knowledge use. Aim to execute what is reasonable for your budget.

Key resource-related factors to consider[17]:

☐ People

☐ Money

☐ Time

☐ Equipment, supplies, and technology

☐ Space

☐ Supports for taking an inclusive approach

    — (e.g., translators, caregiving, and meals)

Team engagement takes time and resources. To help estimate a budget for team engagement, consult this free downloadable budget tool:
https://tinyurl.com/y2x78oww[17]

For a free, downloadable tool for budget estimates for interviews and focus groups, visit
https://tinyurl.com/y5hch7ye[18] You can expand on this budget tool when using other approaches.[18]

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 which 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.

Considerations for all approaches

This guide covers considerations for popular approaches for assessing barriers and facilitators to knowledge use, including: knowledge synthesis; conversations with stakeholders; interviews and focus groups; surveys; and observations.

Why are all these common considerations important?

When undertaking any assessment of barriers and facilitators to knowledge use, it is important to reflect on who we are, who is on our team, and the context of our assessment. By taking time to reflect on these elements, we can be more aware of strengths and limitations of our assessment.

In taking time to reflect, you can design more effective interventions that work to address the complex realities of the people you work with.[2-5]

When using any approaches found in this tool, be sure to dedicate time for team members and project participants to tell their stories. Use the following tips to do this:

☐ Provide open space and support for story sharing.

☐ Reach out to the group in advance to identify the supports they need to share their story.

☐ Do not cut people off while they are sharing their story. This can be traumatizing.

☐ Provide a list of low-cost supports in the community.

Have a team member do some training on taking a trauma-informed approach. For more information on such approaches, visit:

- **Shimmin et al. - Moving towards a more inclusive patient and public involvement in health research paradigm:** https://tinyurl.com/yb5sh3ed[19]

- **Alberta Health Services - Trauma Informed Care:** https://tinyurl.com/v4dbzyx[20]

All of the considerations outlined in this tool are important to think about.[19] Taking an intersectional approach does not mean you can account for every consideration.[19] Balance these considerations with budget, time, and other resource constraints. However, there are aspects you can always reflect on:

☐ Who is on your team?

☐ What experiences and perspectives do you bring?

☐ How can you involve individuals with lived experiences on the topic?

☐ Who has power on your team?

☐ How can you ensure that everyone on the team has an opportunity to share?

When planning, you should always work to enable participation from individuals from a range of intersecting categories. You can use a model, theory, or framework to guide a barriers and facilitators assessment. For example, you can use the Intersectionality-Enhanced Consolidated Framework for Implementation Research (CFIR).[21]

When discussing consent with participants, outline risks of data breaches and how these risks are mitigated. In preparing for this discussion:

☐ Reflect on power dynamics.

☐ How would survey participants feel if someone in power was able to identify their responses?

☐ What risks exist from their perspective?

☐ Consider how international data storage may impact privacy risks.

- For example, data stored in the US may be accessed through the US Patriot Act.[22]

When collecting information to assess barriers and facilitators, you should ensure that the implementation team is committed to respecting the privacy and confidentiality of the information. As with any KT project, you should refrain from sharing any identifying information without participant consent.

Knowledge synthesis

Knowledge synthesis:

A comprehensive assessment of evidence related to barriers and facilitators to behaviour change in a particular topic area. The purpose is to uncover major barriers and facilitators across multiple studies or projects. [23,24]

Please note that this tool discusses how to search for knowledge syntheses. For more information on how to conduct knowledge syntheses, please consult the resources below.

To learn more about general recommendations on how to conduct systematic reviews or knowledge syntheses, visit: **Tricco, A.C., et al. The art and science of knowledge synthesis:** https://tinyurl.com/yyvx6x8r[25]

For more information on types of knowledge synthesis methods, visit **Knowledge Translation Program JCE Series - Knowledge Synthesis Methods:** https://tinyurl.com/y6nstgjw[26]

For guidance on identifying the type of review best suited for a project needing knowledge synthesis, visit **Knowledge Translation Program - What Review is Right for You?:** https://tinyurl.com/y2mvenwd[27]

You should use a reporting guideline to accurately and transparently report your work. Here are examples of relevant reporting guidelines:

- **Welch et al. - PRISMA-Equity Extension: Reporting Guidelines for Systematic Reviews with a Focus on Health Equity:** https://tinyurl.com/yxwh629n[28]
- **The Campbell and Cochrane Equity Methods Group - Equity Checklist for Systematic Review Authors:** https://tinyurl.com/y3lmyk5h[29]

Considerations for designing

Who is designing the search for knowledge syntheses?

You should involve those with lived experience with the topic area. They can help identify relevant areas of inquiry and terms.

If available, you can engage information scientists (e.g., a librarian) who have extensive knowledge on best practices for literature searches.[30]

Specify the topic. Define a research question.

To avoid having too much material returned in your searches, you can use the following prompts to develop your research question[31,32]:

☐ Who is changing their behaviour?
- Investigate whether the reviews you find excluded certain populations. If so, why? Consider exploring the original studies contained within a review to understand who may have been excluded.

☐ What is the desired behaviour change (e.g., the "clinical intervention" or the "practice change")?

☐ What is the current behaviour?

☐ What are the barriers and facilitators to behaviour change (e.g., memory, fear, lack of skill)?

☐ How were barriers and facilitators to behaviour change assessed?

What are you searching for?

Again, reflect with the team on the following:

☐ What your team defines as evidence

☐ What your team defines as high-quality evidence

☐ What your target audience defines as credible evidence

Consider the inclusion/exclusion criteria of the knowledge syntheses:

☐ **Timeline of sources** (i.e., how far back do you want to review? Are there outdated stereotypes or perceptions in the sources to be mindful of?)[33]

☐ **Types of sources:** articles, books, reports, letters to the editor, newspaper articles, diary entries, etc.[33]

☐ **Types of phrases and keywords:** ask those with a range of experiences for search terms and relevant phrasing for barriers and facilitators. Consider how other health care systems (e.g., US, UK) may phrase barriers and facilitators information.

Once you have developed your search strategy, check to see if preliminary results match your original question.

Where to search?

Investigate the following sites to check for reviews that are published or in progress. You can critically appraise reviews using an intersectional approach. Please see the Reflection Workbook for more information on critical appraisal.

• **Joanna Briggs Institute:** https://tinyurl.com/yxcsyad5[34]

• **Trip:** https://tinyurl.com/htbetre[35]

• **Cochrane Library:** https://tinyurl.com/y3cbw5br2[36]

• **PROSPERO International:** https://tinyurl.com/y52kpaof[37]

• **PubMed:** https://tinyurl.com/472npj[38]

• **Implementation Science (journal):** https://tinyurl.com/yy4u2rfz[39]

Share the load, share perspectives and approaches

Include team members with a range of experiences and perspectives when reviewing and appraising the literature.

• A quality assessment and risk of bias assessment should be done independently by at least two individuals. This may require additional training.

As a team, discuss themes that arise related to barriers and facilitators assessments. How might these themes interact with barriers and facilitators in your project?[16] For example, are there themes of childcare and gender roles present across the syntheses?

Work with those with lived experience in the area to understand these themes.

Reflect on search results

As a team, reflect on these considerations while reviewing the literature:

☐ What does your team consider to be "expertise" on a topic?

☐ Consider many forms of expertise, including academic credentials and lived experience.

☐ Is the author of a source an expert in their field?

☐ Consider the power dynamics of those who wrote the publication (e.g., if looking at a government document, consider the biases and motivations that could have impacted the conclusions).

☐ Were the original studies exclusionary? Were the perspectives of certain groups of people excluded from participating?

☐ When was the investigation conducted and published (e.g., are you looking for literature where data was collected prior to a major legislation change)?

It is key to evaluate the quality and risk of bias of each piece of evidence.[23,32,40] A quality assessment and risk of bias assessment should be done independently by at least two individuals.

☐ This may require additional training

☐ Assess the quality of a completed knowledge synthesis.[25] Look at the Reflection Workbook to learn how to enhance existing appraisal tools with an intersectional approach.

☐ Ask those with lived experience on the topic whether the results of the synthesis resonate with them. Are there elements of the review (e.g., rural location) that align or do not align with your project?

What to do when no information is discovered

There are situations when the information you are looking for is not available. If this happens, look beyond peer-reviewed research and consider the following sources:

☐ Content from industry leaders

☐ Internal checklists

☐ Different types of evidence (e.g., lived experience commentaries)

- Reflect on whether there are organizations you work with that have looked into a similar intervention? Did they report any results of a barriers and facilitators assessment?

It is common to not discover any information during this process. This is okay. You can use other methods to assess barriers and facilitators.

Examples of quality and risk of bias appraisal tools (without intersectionality enhancements):

- **AMSTAR team — Assessing the Metholodological Quality of Systematic Reviews (AMSTAR 2):** https://tinyurl.com/y2qzv86a[41]

- **Joanna Briggs Institute — Critical appraisal tools:** https://tinyurl.com/y32xg8ln[42]

- **Critical Appraisal Skills Programme — CASP Appraisal Checklists:** https://tinyurl.com/y7qx99mq[43]

- **Bridget O'Brien — Standards for reporting qualitative research:** https://tinyurl.com/y4av7whx[44]

Considerations for analyzing data and reporting

Include all relevant components of the story

Share the results of the search and the team's process to conduct and appraise the results. You can also report intersectionality considerations related to your team:

- What biases may team members and the team as a whole hold? How did your team try to mitigate these biases?
  - What perspectives were missing from the team?

Conversations with stakeholders

Collect information from informal discussions with participants on barriers and facilitators to knowledge use. These casual conversations typically occur in an unstructured setting (e.g., before a project meeting begins).[45]

General resources

For more on informal conversations

with stakeholders, visit **RWJF - Informal Interviews:** http://tinyurl.com/yxnfrcmm[46]

For more on how to structure open-ended questions in conversations with stakeholders, visit **Changing Minds - Open and Closed Questions:** http://tinyurl.com/nvfq8n[47]

For key tips on active listening, visit **Garzon, J. - Key Tips for Active Listening:** http://tinyurl.com/y5ywhmcw[48]

Considerations for designing/set-up

Mapping stakeholders

Before you talk to stakeholders, you need to reflect on your own biases. Consider the following as a team:

- ☐ Who is affected by the project?
- ☐ How does your team define who is a stakeholder?
- ☐ Who are the key individual stakeholders at different levels of the organization?
- ☐ Who is managing the relationship with stakeholders?
- ☐ Would anyone on the team with lived experience with the topic like to share their perspective?
- ☐ Why are you planning to have conversations with specific individuals?
- ☐ Who are you not speaking with? Why not?

Map all the stakeholders involved, their types of expertise, and the conversations you would want to have.

Exploring consent

Because these conversations arise naturally, the individual or group you are speaking with is not explicitly consenting to sharing information for the purposes of a barriers and facilitators assessment.

If key information is shared, ask your conversation partner if you can use the information in a de-identified way in a barriers and facilitators analysis. If the information is sensitive and there are repercussions for the person sharing it, carefully reflect on whether to use this information. In particular, consider the following:

- ☐ Do not assume consent.
- ☐ Do not use any recording devices because they breach the sense of trust in the conversation.[50]
- ☐ Do not use an interview guide or any materials during the conversation.[51]
- ☐ Do perform conversations "on the fly" so that respondents see it as just a natural conversation.
- ☐ Do find opportunities to communicate frequently in an informal setting with key stakeholders.[49]
- ☐ Do follow organizational guidelines on consent even if you are not in a formal research setting.

Considerations for conducting conversations

Who are you speaking with?

Reflect again after conversations have begun. Consider who you are speaking with:

☐ Are conversation partners actively participating in conversations?

☐ Are you speaking with enough people to capture a range of perspectives?

Build relationships and ensure safety (emotional, psychological, and spiritual) to those you are speaking with:

☐ Have a conversation on safety and power with partners with an open mind

☐ Highlight that they can share only what they are comfortable with

☐ Provide context on intersectionality (e.g., recognize your intersecting categories in the conversation)

☐ Emphasize trust and safety before exploring anything else

☐ Ask participants what consent means to them

For information on building trust and partnerships, visit **Jagosh, J. - A realist evaluation of community-based participatory research:** https://tinyurl.com/y627k6m6[49]

Conducting the conversation

☐ Focus on key barriers and facilitators identified by the stakeholders (i.e., choose quality of barriers and facilitators over quantity)

- If the conversation deviates from a key barrier or facilitator, refocus the conversation.[52]

☐ Talk with the participant to understand their way of understanding the barriers and facilitators[51]:

- See how they react to certain topics, issues, and themes.[53]

- Ask them to contextualize their barrier/facilitator based on their social histories. Ask if there is important historical knowledge you need to understand the barrier/facilitator.[54]

☐ Discuss risk or safety concerns by outlining which conversations are private and your duties to report.

☐ Use active listening techniques and ask follow-up questions.

☐ Provide your contact information to the conversation partners so they can follow up with any thoughts. Highlight that you are happy to speak by phone, email, or another medium.

Record rough notes immediately after the conversation.[46]

☐ Do not use names or identifiers when recording notes

☐ Aim to record all notes within 24 hours of the interaction

☐ Consider how your perspectives, biases, and experiences may impact what you record

Data storage

Although the informal conversation may not constitute formal data collection, store notes in a safe and secure location.

Interviews and focus groups

Interview

A one-to-one conversation between a trained interviewer and a participant about the participant's experience with barriers and facilitators to knowledge use. Interviews may be semi-structured such that the interviewer's questions are predetermined. However, follow-up questions can follow the natural flow of the conversation.[55]

Focus group

A small group discussion run by a trained facilitator that explores barriers and facilitators to knowledge use, typically in response to open-ended questions from the facilitator.[56] The group size is typically 8–10 participants.[56] Focus groups often include a note taker, who records the content of the discussion.[56]

Learn more about conducting qualitative research:

For a more in-depth discussion on conducting qualitative research, visit **Medecins Sans Frontieres - A Guide to Using Qualitative Research Methodology:** https://tinyurl.com/zevdv93[57]

For additional information on intersectionality-informed analysis, visit **The Institute for Intersectionality Research & Policy, SFU - Intersectionality-Informed Qualitative Research:** https://tinyurl.com/y2u5o4kk[58]

For an example of how to incorporate intersectionality into interviews, visit: http://tinyurl.com/y4486cpu[59]

For more information on intersectional approaches to interviews and focus groups, visit http://tinyurl.com/y4llu6jk[60]

For more on conducting a focus group, visit http://tinyurl.com/gmmnjye[61]

Considerations for designing/set-up

Training

☐ If appropriate for your project, consider having interviewers with similar intersecting categories to those populations you are assessing

- E.g., if your study is concerned with a particular language group or practice area

- This may not be appropriate for every project. You should reflect on how biases may affect this approach.

☐ Ask the interviewer and note taker to reflect on their intersecting categories and the complexity of their identity within the research context (explore resources in the Intersectionality Guide).

- Reflect on power dynamics between interviewers and participants (e.g., if the interviewer is a cis white male and participants are trans women of colour, what power dynamics might exist?)

- Reflect on power dynamics between participants (e.g., if staff members and management are included in the same focus group, will staff feel comfortable voicing barriers related to management?)

☐ Investigate and execute processes to work appropriately with marginalized groups (e.g., educational resources, historical context, protocols, interpersonal interactions).

☐ Ensure that the facilitation process will respect everyone's strengths and contributions.

☐ Craft open-ended questions that do not contain assumptions or binaries (e.g., instead of asking "how might being a man or woman influence how this task is done," ask "how might someone's identity influence how the task is done?").[54]

Practice

Run a practice interview with members of the implementation team. In other words, practice with colleagues who are helping to design the intervention before conducting the interviews with your target audience.

The trained interviewer and note taker can complete a mock interview with team members. Team members can provide feedback to the interviewer on format, flow, effectiveness, and inclusivity for participants with a range of intersecting categories.

Less experienced interviewers can sit in as note takers until they are ready to begin interviewing/facilitating themselves.

Practice responding to frequently asked questions in multiple ways. Remember that participants will have a range of intersecting categories and communication styles.

Recruiting

- Explore in-person and online recruiting strategies (e.g., recruiting at a staff education day, using a mailing list).

- See recruiting resources in the Intersectionality Guide.

- Tailor recruitment materials to a range of audiences. Make efforts to include marginalized groups.

- Use samples sizes that are large enough to capture multiple intersecting categories.[43]

- It is not feasible to speak to everyone. However, you should make a particular effort to speak with those you typically do not hear from.

- You can budget for large enough sample sizes up front when planning projects.

- When considering compensation, reflect on how compensation can influence who responds to recruitment materials

- Outline compensation terms and methods up front (e.g., immediately after the interview, a cheque will be available for pickup at this location).

Preparing participants

- If appropriate, consider sending background material and the interview questions to participants before the session (i.e., include plain language definitions of key terms related to your project).

- Offer to convey this information in multiple formats (e.g., mail, phone, email, in-person) tailored to the needs of the participant.

- Inquire about the participant's preferred choice of communication (e.g., in-person, phone, or video).

- Reflect that everyone has different experience with technology. Offer participants the chance to test any technology before the interview.

To learn more about participant compensation, visit **Canadian Institutes of Health Research - Considerations when paying patient partners in research:** https://tinyurl.com/y6jvlta5[62]

Preparation

- Provide a consent form to the participant in advance. In addition, provide a printed version during an in-person interview or focus group. Offer multiple opportunities and venues for answering participant questions.

- Plan for and budget to accommodate needs and preferences (e.g., microphones, religious or cultural days, childcare, support companion).

- Select a fully accessible venue if conducting an in-person interview or focus group.

- Arrive at the interview or focus group location at least 15 minutes before the start time. Ensure audio/video equipment is working.

- Have plain-language background information about the study and a script ready for the facilitator and note taker.

- Highlight important questions or probes to prioritize in case of time constraints. Ask those with lived experiences to help prioritize key questions.

How can you prepare interview/ focus group materials?

National Implementation Research Network - Interview tips (see pages 5 – 13)

https://tinyurl.com/y266ypej[63]

National Implementation Research Network Interview Video Examples:

https://tinyurl.com/y43n494q[64]

For more on patient engagement, visit **Arthritis Research Canada's Workbook to guide the development of a Patient Engagement In Research (PEIR) Plan:**

https://tinyurl.com/yyrugmc5[65]

Access Alliance - Everyone can do research (see pages 51 – 54 for interview related tips):

https://tinyurl.com/accessalliance[66]

Considerations for conducting interviews and focus groups

General interview/focus group procedures

The following are common principles for conducting interviews/focus groups:

☐ When possible, ensure that each interview includes a facilitator and the note taker.

- At the beginning of the interview/focus group, you should introduce yourself and state your pronouns.

☐ Review the purpose of the interview/focus group and the terms of consent with each participant. Be prepared to answer any questions they may have.

- Individuals may have different questions and responses about consent, especially given historical relationships between researchers and certain groups. Your team should be sensitive to these histories and possible questions.

☐ Create a space where the interviewee feels they can stop the discussion if necessary or ask clarification questions if they require more information.

☐ For focus groups, consider using an approach where each participant has a chance to answer the question presented before group discussion begins. This is sometimes called a round robin approach

☐ When following up on a line of inquiry, continue to ask open-ended questions, such as "can you explain further?" or "can you give me an example?"

☐ Monitor the time to determine the pace of the interview/focus group.

☐ At the end of the interview/focus group, thank the participants for their time and, if applicable, provide them with information on follow-up support services (e.g. help lines).

☐ Where possible, provide the opportunity for participants to follow up with any stories or reflections that they did not get to share in the interview/focus group.

☐ Process participants' reimbursement and compensation in a timely manner.

☐ Follow up with participants about the project results.

Making sense of interviews and focus groups

There are many ways to go about interpreting the information shared in interviews and focus groups.[67] In general, analyses are iterative, follow a systematic process, and involve discussion with the groups you have interviewed.[67]

Coding

Coding is a process of organizing themes and concepts that emerge across interviews or focus groups.[68] You and your team will likely code word-for-word transcripts or detailed notes of interviews and focus groups.

For barriers and facilitators assessments, you will generally follow one of or a mix of two overarching approaches:

1. Establish themes first and then code transcripts with themes:
   - This approach may be preferred for areas where barriers and facilitators to behaviour change are well known from existing knowledge.[67]
   - Working with a group that represents a range of intersecting categories, discuss themes that you anticipate will arise in transcripts.
   - Consider further refining codes to reflect specific aspects of intersectional experiences (e.g., intersection of gender roles and age).[69]

2. Review transcripts first and then note themes that emerge:
   - This approach may be preferred for areas where barriers and facilitators are not well known.
   - At least two coders that represent a range of intersecting categories will review transcripts in a systematic way to identify themes. You can use Table 2 of Bradley et al.'s work to define code types and purposes.[67]
   - Reflect on and code for information in transcripts that reflects intersectional themes (e.g., power dynamics between nurses and doctors).

Adapting these approaches together is sometimes called multistage analysis or the Framework Approach.[67, 69, 70]

When using any coding approach, you and those on your team should consider:

- Before coding, first reflect on your own biases and experiences and how these might influence the coding process.
- Acknowledge and plan to manage power differences that may exist between coders.
- If one coder manages the other, set up discussion guidelines to ensure all voices are heard.
- When coding, consider how participants' identities are experienced and how their experiences were influenced by social and historical contexts.
- Write down notes throughout the review process to explain your reasoning and themes you are unsure about. Compare annotations with fellow coders.
- Two independent coders should review and code at least 20% of the full transcripts. For example, two people independently review two out of ten interview transcripts.
  - Hold consensus meetings to discuss and reconcile discrepancies between the two coders.
- Here are some examples of software programs you can use to code

  NVivo: https://tinyurl.com/y5alm69x[71]

  Raven's Eye: https://tinyurl.com/y5mkxlkh[72]

  Dedoose: https://tinyurl.com/yyg3lmdt[73]

  MAXQDA: https://tinyurl.com/y6x29o4s[74]

Considerations for analyzing data and reporting

Review results in context

Ask a sub-set of interview participants and/or other people with lived experience to review the results.

- Explore whether they think the themes uncovered in the interviews are reasonable.
- Discuss what language could be used to contextualize the results.

- Refer to the Reflection Workbook's section on self-reflection
- This process will likely require research ethics board approval. Plan for this in budgets and timelines.
- Consider who is included/excluded in the results to identify gaps.

Consider the power dynamics among interviewers, focus groups facilitators, and participants. For focus groups, also reflect on power dynamics amongst participants.

- Did participants feel comfortable sharing their thoughts with the facilitators?
- Are there power dynamics among participants to consider?

Report full results

You should report results accurately and transparently using the COnsolidated criteria for REporting Qualitative research (COREQ) checklist.[75]

- You can also report additional intersecting categories that are not listed in the COREQ checklist.

Guide for Common Approaches to Assessing Barriers & Facilitators to Knowledge Use
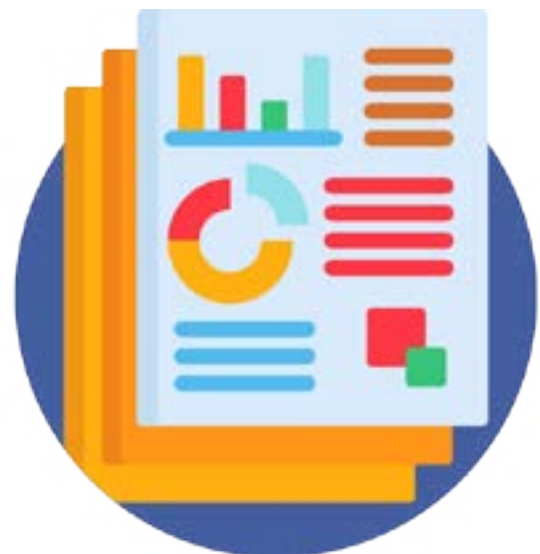
Surveys

Survey

A method of gathering information on barriers and facilitators from individuals or groups through their responses to structured questions. [76-79]

Surveys can be conducted in multiple forms, such as face-to-face, by telephone, in writing, and online.

General resources

For example questions on intersectional concepts, including cultural diversity, visit **Columbia College - Cultural Diversity Self-Assessment survey:** http://tinyurl.com/y5tolxy9[79]

For suggestions on crafting surveys, see **Dillman's Principles for Questionnaire Construction:** http://tinyurl.com/yyylkdq7[80]

For more in-depth information on taking an intersectional approach in quantitative analysis:

- **Rouhani, S. - Intersectionality-informed Quantitative Research: A Primer:** http://tinyurl.com/y25qp87g[81]

- **Bauer, G.R. & Scheim, A.I. - Methods for analytic intercategorical intersectionality in quantitative research: Discrimination as a mediator of health inequalities:** http://tinyurl.com/y5w5suc9[82]

Considerations for designing/set-up

Development

Always refer to project objectives when designing surveys[83]:

☐ If a question is not related to project objectives, does it need to be included?

☐ Be respectful of participants' time and efforts by excluding unnecessary questions.

☐ Craft questions that are free of stereotypes and binaries.[54]

☐ Consider separating intersecting categories in demographic sections. Prompt respondents to "check all that apply" for identity factors that influence their experience.

☐ Give the option of selecting multiple answers (e.g., ethnicity, sex, gender identity, sexual orientation).

☐ Provide "N/A" and "I prefer not to answer" so participants are not forced to provide an answer.

☐ Avoid the term "other." Consider including a text box or blank line for participants to input their own response. For face-to-face or telephone surveys, create space for participants to provide their own responses. For example, you can ask "is there anything you would like to share that we have not discussed.

☐ Avoid questions that totalize people's experiences, such as agree/disagree questions.

Overall, reframe gender identity and other intersecting categories as "structural categories and social processes rather than primarily the characteristics of individuals."[84,85] This may lead you to explore how factors beyond an individual's control may combine with other variables at organizational and system levels.[84,85]

For more, visit **Status of Women Canada's Gender-Based Analysis Plus Research Guide:** https://tinyurl.com/y4bzqqgx[85]

Differentiate between ethnicity, culture, and race when

collecting data:

☐ Consider different ways ethnicity and race are categorized.

☐ Reflect on how you are planning to use this data and consider the pros and cons of collecting this information.

Collaborate with those with lived experiences for phrasing to use in surveys. Use terms that physiotherapists use in their practice if they are the survey's target audience.

Use questions that have been shown to be valid, particularly for the intersecting categories relevant to the project.[82]

Let participants complete the survey multiple sittings. Limit the survey length and the number of questions presented on each page.[83]

Consider how to make the survey accessible for everyone.

☐ Could you change the font size and colours so that those with visual impairments can more easily participate?

☐ Could you provide an audio version of the survey?

☐ Could you translate the survey into multiple languages?

☐ Is the survey in plain language?

☐ Is the survey compatible with screen readers for people with visual impairments?

Provide the contact information for one team member who can answer questions participants may have.[86]

Review the questions and consider how a participant may respond. Would they be able to easily record a response?[87]

☐ Consider sending reflection prompts before distributing the survey to give respondents time to contemplate their responses.

Reflect on your team's assumptions about where, when, how, and why someone will fill out the survey:

☐ Are they at work?

☐ Are they answering the survey out during work hours?

☐ Are they answering it online?

☐ Why are they filling out the survey?

Conduct usability testing on the survey before administering it.

☐ Ask colleagues or project partners with different backgrounds, experiences, and communication preferences to test the format, flow, and effectiveness of the survey.

☐ Consider the accessibility of the survey if it is in an online version

If you are using an online survey, are you assuming that participants are technologically literate and able to navigate to and through the survey?

☐ Are you assuming that participants have access to computers and smartphones?

• If someone does not have or is not able to use a particular device, how can their voice be incorporated?

☐ Is the text large enough to be reasonably read by those with a range of vision abilities?

☐ How would people with a range of hearing abilities complete a telephone survey?

Consider different modes of sharing/completing a survey (e.g., in person, online, by mail, via social media, over the phone).[86,88] Advertise to potential participants that the survey can be completed in multiple modes based on their needs and preferences.

Where relevant, be sure to be compliant with your research ethics board requirements:

☐ E.g., consider how reimbursement is handled with deidentified responses.

• Consider questions beyond privacy (e.g., risk for traumatization).

Considerations for conducting surveys

Survey administration

To maximize response rates, send reminder messages at 1-, 3-, and 7-week intervals after initial contact.[89]

- Use different means of follow-up communication that are tailored to participant needs.
- Are there groups who are not responding to the survey? Why not? How can you enable everyone's participation?

You can use these online resources for survey administration (free to use, web-based):

SurveyMonkey: https://tinyurl.com/a7u4ar[90]

Qualtrics: https://tinyurl.com/bqjvz5f[91]

REDCap: https://tinyurl.com/y294q54j[92]

Google Forms: https://tinyurl.com/lfqd9hl[93]

Data collection

Ensure that all data is protected and cannot be accessed by anyone other than designated team members.[76,83] Where appropriate, keep data organized by individual record or response so it is easy to facilitate comparisons between people from different groups across multiple intersecting categories.

Considerations for analyzing data

Data analysis

If demographic information is collected, consider barriers and facilitators experienced by those who have particular intersecting categories (e.g., gender identity, geographic location, and ethnicity).[54]

- Avoid large group categorizations that may miss intragroup differences.[94]
- Balance the need to report disaggregated results with the need to ensure participant anonymity.
- ☐ For example, do not report results with fewer than five individuals in a cell or grouping.

Plan for how to categorize/analyze data collected from open-ended questions.

If data was collected at multiple time points, consider the following:

- At what time point are you planning to analyze the data (e.g., after all data has been collected or at intervals)?
- What time points are relevant to those with lived experience?

☐ For more information on data analysis, visit http://tinyurl.com/y5w5suc9[82]

Reflect on modifications

If any changes were made to the survey after it was deployed, why did the changes happen?[95]

- E.g., did you change the size of a response box to allow participants to provide more background context?

How can you use these lessons learned in future surveys and projects?

Observation

Observation

A method in which a trained observer collects information in an environment to better understand barriers and facilitators (e.g., barriers and facilitators on communication patterns and adherence to policies).[96] The observer typically uses a template to record field notes in a structured way.

Think outside the box

Consider alternative ways to conduct observations. When doing this, keep data security and participant privacy needs in mind.

For example, the Photovoice process empowers participants (usually with limited power due to language, culture, age, or other intersecting categories) to observe, identify, and discuss their barriers and facilitators through a specific photographic technique.[97] Note that because participants and personal identifiers may be photographed, participant data may not be protected through this method.

- Follow research ethics board principles on privacy, consent, and protection for participants.

For more information on assessing community needs and resources, visit https://tinyurl.com/y56lt3yg[98]

For an example of using Photovoice to understand cardiovascular health awareness in Asian elders, visit https://tinyurl.com/yyryq5rz[99]

General resource

For more on participant observation, visit **Research Methods and Statistics 2.2. Participant Observation:**

http://tinyurl.com/yyx7ev5v [96]

Considerations for designing/set-up

Consider expectations

When participants are not aware that they are being studied, they must remain anonymous and the behaviour must occur in a public setting where people would not typically have an expectation of privacy.

Observe inwards

Have trained observers reflect on what they bring to the observation. What experiences have they had that may influence what they choose to record or not record?

- Use the Reflection Worksheet to guide self-reflection.
- When categorizing peoples' gender, race, or ethnicity, acknowledge the team's biases and the subjective nature of this process.

Setting up the observation template

- Leave blank spaces to record the time and date of the observation.[100]
- Use wide margins; record rough notes and thoughts here.[100]
- Include room for diagrams/maps of the physical setting (this can help us think through barriers and facilitators).[100]

Training

An observer in training can complete a mock observation with a more experienced rater (sometimes called a "gold standard rater") on the team. Trainees can complete observations individually, compare among one another, and determine if the notes were 10—20% in alignment.

- Use an assessment sheet when comparing results with others. This will help establish a baseline.

Considerations for conducting observations

Addressing biases

Participants may knowingly or unknowingly alter their behaviour as a result of being observed.[46] These are ways to mitigate this effect[101]:

- Make multiple visits.
- Consider having someone who works in the setting serve as the trained observer.
- Conduct observations in the least intrusive space in the setting so participants' typical behaviour is not disturbed.
- Do not share what you think may be happening (i.e., the barriers and facilitators) with those being observed.

Further, it is important that you acknowledge the biases you bring to this research so that you can recognize how they might influence the work you do.

During the observation period

- Do not speak with other members of the study team (e.g., another observer) about observations until all observations have been recorded.[100]
- Ensure notes include what happened, who was there, how it happened, and when it happened. Be specific about the barrier and facilitator (e.g., a specific software program on a specific computer was not working).[100]

☐ As an observer, are there aspects of the setting that you personally find physically, psychologically, or physiologically distracting? How does this affect your data collection?

- Keep track of small talk or routines that may appear to be insignificant at the time (they may be relevant).[100]

☐ Take notes of things that are mentioned at individual, organizational, and system levels.

  - Be open to writing quickly and recording messy notes. As long as an individual observer can interpret the notes, do not focus on spelling and grammar.
  - Avoid using language that makes judgements (e.g., "the desk was filthy"). Instead, be specific about what is observed (e.g., "the desk contains 10 separate stacks of papers and journals").[100]

Considerations for analyzing data

Consider conversations in context

Is there additional contextual information (e.g., body language, eye contact with other team members, sociocultural histories) that may help you further understand what has been observed?

- Consider reviewing observation notes with a participant to avoid any misinterpretations.

☐ Note that depending on the organization, this may require research ethics board approval. Include this approval process in project timelines.

Again, reflect as a team on the following:

☐ What is your team's prior knowledge or experience?

☐ How does your team's background experience influence the way situations are interpreted?

Data management and analysis

Once an observation site visit is complete, record rough field notes immediately and complete them within 24 hours.[102]

When your team has completed the analysis, consider reflecting on how data collection may have been similar or different across observers or different visits.

- Why may this have been the case?
- What can your team learn from this for future observations?

Once the barriers and facilitators assessment is complete

Next Steps

Disseminate results to other members of your implementation team, other members of your organization, and participants who provided information on barriers and facilitators.

- Consider evaluating how the barriers and facilitators assessment went:

☐ Were you able to assess barriers and facilitators?

☐ Did you allow space for all participants to share their stories?

☐ What voices were and were not represented in the barriers and facilitators assessment?

- − Once the barriers and facilitators assessment is complete, the implementation team will use the findings to select, tailor, and implement a KT intervention. For more information on selecting and tailoring KT interventions, see the Selecting and Tailoring KT Interventions Workbook.

Appendix A: 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, and 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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