A framework for interprofessional team collaboration in a hospital setting: Advancing team competencies and behaviours

Elizabeth McLaney, MEd1,2,3; Sara Morassaei, MSc, PhD(c)1,4; Leanne Hughes, MEd1; Robyn Davies, MApplSc2,5; Mikki Campbell, MHE1,2; and Lisa Di Prospero, MSc1,2

Abstract
Healthcare teams that practice collaboratively enhance the delivery of person-centred care and improve patient and systems outcomes. Many organizations have adopted existing interprofessional frameworks that define the competencies of individual health professionals that are required to meet practice standards and advance interprofessional goals. However, to support the collective efforts of team members to deliver optimal care within complex hospital settings, healthcare organizations may benefit from adopting team-based competencies for interprofessional collaboration. The Sunnybrook framework for interprofessional team collaboration was intentionally created as a set of collective team competencies. The framework was developed using a comprehensive literature search and consensus building by a multi-stakeholder working group and supported by a broad consultation process that included patient representation, organizational development and leadership, and human resources. The six core competencies are actionable and include associated team behaviours that can be easily referenced by teams and widely implemented across the hospital.

Introduction
Interprofessional collaboration has become firmly established as an important component within education and healthcare. There is emerging evidence that when interprofessional healthcare teams practice collaboratively it can enhance the delivery of person-centred care and lead to improved patient and health systems outcomes. In an effort to train Healthcare Professionals (HCPs) and promote interprofessional collaboration, a number of competency frameworks have been developed.

While there are number of existing competency frameworks for interprofessional collaboration, the most widely referenced are framed as a set of individual competencies that define the attributes, knowledge, and skills of individual HCPs that are required for collaborative practice. Many academic institutions and healthcare organizations have adopted interprofessional competency frameworks to put in place standards of practice and support the knowledge and skills of HCPs. Organizations have also used competency frameworks to set performance indicators that can be used to evaluate HCPs in their ability to practice collaboratively. There is an assumption with the adoption of individually framed competencies that if the set of competencies are enacted by each HCP then interprofessional collaboration and team performance will be optimal. However, delivery of optimal care within an effective interprofessional team is based on the collective efforts of team members and is better accomplished through a number of shared responsibilities, interactive planning and collaborative decision-making. Accordingly, the complex organization of acute care settings and the diverse group of HCPs that comprise the hospital environment warrant a team-based approach to improve care. In addition, the assessment of collaborative practice using an interprofessional lens and based in team conversations reflects the delivery of real-world integrated care and may lead to the development of high-impact and innovative team capacity-building. Therefore, healthcare organizations may benefit from adopting team-based competencies for interprofessional collaboration. Given the growing importance of interprofessional collaboration, the limited team-based competency frameworks to guide hospitals in advancing interprofessional collaboration remain a gap.

To address this gap, an interprofessional working group at Sunnybrook Health Sciences Centre (Sunnybrook), an academic health sciences centre located in Toronto, Ontario and the largest trauma centre in Canada, recognized the need for the development of competencies that are framed as team competencies. While it remained important to maintain alignment with standard professional and clinical competencies, the Sunnybrook competency framework aimed to promote the idea of collective competence rather than individual capabilities. The framework was intended for hospital-wide implementation and aimed to provide a common language for collaboration across settings, roles and professions and set consistent team expectations for collaborative practice.

Corresponding author:
Elizabeth McLaney, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada.
E-mail: elizabeth.mclaney@sunnybrook.ca
Methods

The development of core competencies for interprofessional collaboration at Sunnybrook was part of a wider IPC strategy to become a system-wide leader in advancing a culture of interprofessionalism and foster the highest quality, compassionate and person-centred care. A collaborative bottom-up approach was taken to the development and implementation of the framework to optimize acceptance and adoption of the competencies by the various clinical and non-clinical teams. The development and implementation of the core competencies is outlined below. Institutional ethics board review was not required for this development work as determined by the Sunnybrook Health Sciences Centre Research Ethics Office.

Working group and stakeholder consultation group

A 10-member IPC working group comprised of representatives from interprofessional education, professional practice, and organizational development and leadership was established. The IPC working group executed each step of the development process and led the stakeholder consultation process. A larger stakeholder consultation group was established which included clinical and non-clinical staff representing a variety of roles and expertise. The stakeholder consultation process included distribution of materials for review and feedback to directors of operation, patient care managers, nurse practitioners, health professions leaders, advanced practice nurses, clinical educators, and patient and student representation, as well as the Interprofessional Education Committee and the Education Advisory Committee.

Literature review and information extraction

A comprehensive literature search was conducted by a librarian through a reference interview to identify published and grey literature within the past 15 years with potential relevance to the development of hospital core competencies for interprofessional collaboration. The search was conducted using the Medline and Health Business Elite databases and a combination of keywords related to interprofessional collaboration. A total of 376 citations were identified. A screening and selection process was undertaken by the members of the IPC working group. A review of titles and abstracts eliminated 265 articles that were deemed not applicable to the development of interprofessional team competencies. The remaining 111 articles were retrieved for full-text review. The IPC working group members were assigned articles for detailed review, and each article was reviewed by at least two members. From these articles, 18 articles were selected for information extraction. Working group members were tasked with extracting reported enablers of interprofessional collaboration from the remaining articles.

Development of core competencies, definitions and associated behaviours

Through a process guided by principles of consensus building, the IPC working group members grouped the list of evidence-based enablers by frequency and theme. This yielded 29 key enablers that were vetted for organizational relevance and alignment against hospital strategic plans. The key enablers underwent a second thematic grouping by the IPC working group who selected and synthesized the set of enablers based on their diverse expertise, knowledge, and experience to construct six core competencies. During the consultation period, the competencies were shared with the larger stakeholder group to seek feedback and confirm that core competencies aligned and resonated with the various clinical programs and health professional stakeholders. Additionally, a World Café model, which is a participatory approach for collecting large group feedback, was used to hold an interactive stakeholder event to further engage stakeholders. The IPC working group used the feedback to further refine the core competencies and to develop the definitions and associated key behaviours that support interprofessional collaboration. The feedback was also used to develop an implementation plan for embedding the competencies across the organization. After a final circulation for review by key stakeholders, the core competencies for interprofessional team collaboration were approved by the Sunnybrook Interprofessional Collaboration Advisory Committee, the Interprofessional Steering Committee, executive sponsors, and the senior leadership team at the hospital.

Theoretical orientation for core competencies

The theoretical context and framing of the competencies were informed by the existing literature and evolved through discussions at working group meetings and through stakeholder consultation. The orientation of the framework was based on a pragmatic approach to maximize performance enhancement (as opposed to deficit-based), which means that one of the primary considerations when shaping the competencies was on what needed to be accomplished to advance interprofessional collaboration in the organization over the next few years. Lastly, the interprofessional team was defined as being inclusive of patients, families, clinical, non-clinical, and support services staff.

Results

The Sunnybrook framework for interprofessional team collaboration (Figure 1) is a set of six core competencies that have been worded purposefully as collective competencies and are designed for application to teams, as well as accompanying definitions for each and 19 associated behaviours.

The framework aims to support interprofessional collaboration which is placed at the centre of the figure. The competencies extend to the four domains which encircle interprofessional collaboration in the figure: (1) clinical and professional practice and care, (2) education, (3) research and quality improvement, and (4) approach to leadership. As part of the competency framework, interprofessional care is defined as “working together to deliver the highest quality of care”, while interprofessional education is defined as “learning about, from and with each other”. Interprofessional research and quality improvement occurs when two or more professions
come together to integrate expertise and scientific perspectives to answer a shared research question or address a quality issue.\textsuperscript{23} The framework defines interprofessional leadership as drawing on the strengths and capacities of team members in all professions and roles. Interprofessional leadership recognizes the importance of multiple voices and perspectives to achieve organizational and cultural change in an environment of complexity.\textsuperscript{24}

The six core competencies, accompanying definitions for each, and associated behaviours for interprofessional team collaboration are presented in Table 1.

The six competencies include shared decision-making, interprofessional values and ethics, role clarification, communication, interprofessional conflict resolution, and reflection. Each competency and associated behaviour seeks to leverage the expertise of all team members and to create and achieve mutual goals. The phrasing of the associated behaviours refers to "the team" and provides actionable activities that together foster and create the right structures and supports for collaborative innovations and partnerships in practice, education, research and leadership at all levels of a healthcare organization.

**Implementation of the competencies across hospital settings**

Using a participatory approach and stakeholder feedback, several implementation strategies were generated to embed the competencies across hospital settings. The implementation strategy avoided a top-down approach and aimed to entrust ownership and promote uptake of the framework by both formal and informal clinical and non-clinical leaders. For example, staff from each clinical area became familiar with the competencies in small group sessions using an interactive game. Together with members of the interprofessional education committee, unit staff participated in the interactive game by rolling a die, discussing the competencies, and describing an example of how their team could enact whichever competency landed face up on the die to win a prize.

Another implementation strategy for embedding the interprofessional competencies throughout the organization was the addition of competencies to the organization’s onboarding and orientation program for new staff, as well as to the organizational leadership development program and student interprofessional education.

**Application of the competencies by care teams and at organizational level**

Each clinical and non-clinical team across Sunnybrook is unique in how they use the team-based interprofessional competencies. Most commonly, teams use the framework to evaluate and debrief on their collaborative practices. These team debriefs include both clinical and non-clinical unit staff, physicians, medical students, and other learners. Using the competencies and associated behaviours, teams assess their performance which can both facilitate an acknowledgement of their strengths and can lead to the development of workplans that identify opportunities for training, capacity-building, and improvement. Changes implemented by teams to improve team collaborative practices vary widely. For example, a team on a general internal medicine unit created protected time for team reflection after identifying the competency of reflection as an area of improvement. The team implemented monthly reflection sessions and team members were asked to share suggestions for topics of discussion through e-mail or a suggestion box on the unit. The reflection sessions are entirely team-driven with no individual facilitation. The team members openly reflect on difficult scenarios, identify struggles and stresses that are shared among the members, and provide support and generate solutions. The sessions are well-attended, with anecdotally collected positive feedback from team members who report feelings of camaraderie and community.

At an organizational level, the team competencies were used to align processes and adapt existing tools to endorse the framework and foster a culture of interprofessional collaboration. For instance, the competencies were used to create the assessment rubric for judging abstract submissions to an annual, organization-wide interprofessional collaboration showcase (ie, mini-conference). The competencies were also used to generate presenter guidelines for quarterly interprofessional grand rounds and to create an evaluation tool to assess whether the rounds supported awareness of each competency. As well, a “Team-based Interprofessional Teaching” award based on the competency framework was created to acknowledge an individual or team who is nominated for their collaborative, education best practices at an organization-wide level.
Table 1. The Sunnybrook core competencies for interprofessional team collaboration and associated behaviours

**Core competency: Communication**

*Definition:* Interprofessional teams seek to achieve common understanding when communicating across roles and professions. They are attentive to actively providing information to and seeking information from team members and other teams to ensure a thorough understanding of the situation. They create processes and tools and select varied media/approaches to enhance the exchange of information within and across teams.

*Associated behaviours*

The team:
- Develops processes for exchanging information in a specific and timely manner - within and across teams
- Explicitly considers which members need to be involved in giving and receiving which pieces of information
- Communicates using language that is common among roles and professions by avoiding jargon and acronyms, providing explanations and checking for understanding

**Core competency: Interprofessional conflict resolution**

*Definition:* Interprofessional teams respond to anticipated or occurring conflict situations with appropriate and skilled interventions in a timely manner by collaborating to create a range of solutions.

*Associated behaviours*

The team:
- Identifies and proactively and effectively addresses team conflicts within and across teams
- Listens open mindedly to differing opinions and ideas from diverse roles and professions
- Discusses difficult team issues and arrives at mutually agreed upon solutions

**Core competency: Shared decision-making**

*Definition:* Interprofessional teams decide collaboratively on plans. Team members come together to determine appropriate actions. Where necessary, teams decide who will make the final decision and who holds accountability for which tasks.

*Associated behaviours*

The team:
- Creates and implements interprofessional care plans which reflect what is most important to patients and families/customers
- Decides collaboratively on learning goals that are shared across roles and professions
- Identifies and designates accountability for all aspects of the work particularly where there is role overlap

**Core competency: Reflection**

*Definition:* Interprofessional teams learn from their history and experiences. Team reflection is both process and performance oriented. Team members identify what they are doing well and what can be improved. They are attentive to optimizing how they interact with one another and the impact that their team function may have on patient care/collective work.

*Associated behaviours*

The team:
- Dedicates time to ongoing team reflection
- Develops processes and tools to support ongoing team reflection
- Identifies successes and gaps regarding their collaborative work and celebrates or strategizes accordingly
- Uses concepts of team development and team dynamics to appraise how they are doing collectively

**Core competency: Role clarification**

*Definition:* Interprofessional teams ensure that members understand each other’s roles, scopes, and expertise. They explore interdependencies between their roles and optimize each member’s scope with consideration of repetition and redundancies.

*Associated behaviours*

The team:
- Members are able to articulate their role and/or scope of practice to others on the team
- Members actively seek understanding of the roles of others on their team
- Members recognize their limitations and consult with one another appropriately based on knowledge, skills, roles, and scopes

**Core competency: Interprofessional values and ethics**

*Definition:* Interprofessional teams create a climate of transparency, openness and willingness to collaborate. They maintain an inclusive approach and every team member’s perspective is valued.

*Associated behaviours*

The team:
- Members speak with positive regard when discussing other roles and professions
- Creates a safe environment for all members to speak up and advocate as necessary
- Considers the values and ethics of the organization, regulatory bodies, and the individual members in team discussions
Discussion

The Sunnybrook core competencies for interprofessional team collaboration set minimum expectations for teamwork and establish a shared vocabulary that can be used to describe interprofessional collaboration. The competencies emphasize building high performing teams and support collaboration among diverse teams and settings along the continuum of care. By creating recognizable behaviours among team members, the competencies become valuable both in the presence of collaborative practice, to label and build on successes; and in the absence of collaborative practice, to identify opportunities for improvement and provide a roadmap to achieve goals. These competencies can also support hospitals undergoing accreditation and that are subject to standards that require the effectiveness of team collaboration and functioning to be evaluated and opportunities for improvement to be identified. Furthermore, implementation of the framework can strengthen healthcare organizations to extend beyond these standards to support the delivery of high-quality care that can better anticipate and meet the needs of patients and their families.

Many existing interprofessional frameworks are structured as individual competencies and are intentionally broad to make them applicable to multiple settings, but a one-size-fits-all approach has limitations especially when it comes to the complexity of a hospital setting. The Sunnybrook team-based competencies were designed with the unique context of the hospital in mind. The competencies and behaviours aim to maximize efficiency and usability by all members of the care team regardless of role and extending to both clinical and support profession services. Furthermore, development of the framework was evidence-informed, patient-oriented and involved a multi-stakeholder consensus building process. Notably, the stakeholder engagement included representatives from organizational development and leadership, as well as human resources, whose perspectives were instrumental in shaping the framework as behaviour-based competencies as opposed to value-based competencies. Behaviour-based competencies are actionable, applicable to all staff, and can be embedded in performance appraisals, which help support hospital-wide implementation of the framework. Also, the framework formally considers patients and families as part of the interprofessional team and as part of the organizational culture. Patient stakeholder recommendations suggested that the framework does not differentiate patients as a separate component, but instead integrates partnering with patients within each core competency.

There are also some limitations to the development of the Sunnybrook competency framework. The framework was not validated using validation methods after the development of the competency and behaviour items. While numerous stakeholder groups provided feedback on the set of competencies, the items were not tested to determine whether they represented a discrete construct (ie, collective team competence) or whether each item was mutually exclusive and non-overlapping components of a single construct. Therefore, it is possible that, for instance, working on building capacity within one competency would lead to improvement in another competency as well. Also, in order to make the Sunnybrook framework practical and easy to use by busy care teams, the large number of potential enablers of interprofessional collaboration was distilled down to a set of high-impact items that would be most effective in rapidly advancing collaborative practice. The resulting set of competencies is therefore narrower than some existing interprofessional competency frameworks that are more extensive, catch-all frameworks that include a broader set of competencies or sub-competencies.

While the clinical skills of individual team members are important, the framing of the competencies go beyond individual expertise and focus on collective competencies to build a culture of “we” that can optimize safety and performance. Models that guide high-performing teams such as the widely referenced inputs, processes, and outputs framework emphasize the importance of team processes, such as team communication and collective problem-solving, as critical mechanisms that influence performance and lead to positive outcomes. For example, reflection is generally an individual practice of critical thinking used to evaluate and learn from experiences. However, reflection as a core competency in this framework promotes team reflection on experiences to identify opportunities for change and improvement. The reflective behaviours enable “we” conversations that are process-oriented and focus on how interactions among team members can be improved to meet goals.

There are several potential avenues for the future application of this framework. Given that many hospitals have education strategic plans that focus on teaching and learning opportunities to enhance care, organizations can collect aggregate-level data from team assessments based on the set of competencies, which can be used to develop educational programming at a corporate level. As well, the competency-based data from team assessments could be used to assess the impact of advancing team competencies to practice collaboratively on quality of care and patient safety indicators such as patient satisfaction, as well as on staff satisfaction and well-being, and retention of the healthcare workforce. Lastly, future research assessing the patient and family perspective on team collaborative practices using the competency framework is needed to explore the impact on patient-centred care and patient-oriented priorities.

Conclusion

The Sunnybrook core competencies for interprofessional team collaboration provide a framework to guide hospitals toward advancing interprofessional collaboration among complex teams in order to enhance the delivery of person-centred care and improve patient and health systems outcomes. The framework was designed as a set of high impact team-based competencies and behaviours that can be easily referenced in complex, fast-paced team environments and widely implemented at all levels of the hospital.
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ORCID iDs

Sara Morassaei https://orcid.org/0000-0002-7121-727X
Mikki Campbell https://orcid.org/0000-0003-4374-9794

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