Core Competencies: The Next Generation

Comparison of a Common Framework for Multiple Professions

Sarita Verma, LLB, MD, CCFP, FCFP
Teresa Broers, MSc
Margo Paterson, PhD, OT Reg (Ont)
Cori Schroder, MD, MEd, CCFP, FCFP
Jennifer M. Medves, PhD, RN
Carole Morrison, BA

This report demonstrates the application of a competency model to the regulated and unregulated professions of medical radiation technology, social work, pharmacy, and psychology. The competency model is based on the CanMEDS framework and was originally applied to the professions of medicine, occupational therapy, physical therapy, and nursing in an earlier work. The framework identifies the core competencies common to learners in health care, which are professional (and health advocate), expert, scholar, manager, communicator, and collaborator. In this report, these core competencies are applied to four additional disciplines in an effort to make the cultural shift from discipline-based silos to a common language for ascertaining the skills, knowledge, and attitudes needed to function in interprofessional teams. J Allied Health 2009; 38:47–53.

HEALTH CANADA, through its Interprofessional Education for Collaborative Patient-centred Practice Initiative, spearheaded several initiatives that sought to change the way health care providers are educated by ensuring that providers have the necessary knowledge and training to work effectively in interprofessional teams. As a result, innovative interprofessional education activities have been planned and implemented for health care learners in colleges and universities across Canada. An earlier report identified the core competencies common to learners in medicine, nursing, occupational therapy, and physical therapy that could be used to facilitate the integration of educational curricula for interprofessional education across the faculty of health sciences at one Canadian university. Improved understanding of the common core competencies also met the expressed desire of teaching faculty to have a shared vocabulary and better understanding of objectives, expectations, and standards across different health care professions. The resulting harmonized core competency model represented a set of descriptors that are comparable on the horizontal plane and can facilitate cross-pollination of skills among the four professions. The report further suggested that the model could be extrapolated to other health professions, which include regulated as well as unregulated professions. Social work is an example of an unregulated health profession; social workers are integral to every health care team, given the realities of short-term stay, discharge planning, and access to social support services.

Thus, based on the harmonized core competency model for medicine, nursing, occupational therapy, and physical therapy, the aim of this study was to apply the model to the core competencies identified in medical radiation technology, social work, psychology, and pharmacy. These professions were chosen primarily because of their critical roles in the hospital in general and on interprofessional teams in particular.

Defining Core Competency

Core competencies are a valuable concept for comparing the responsibilities of various professionals. The idea behind identifying core competencies and sharing them across the continuum of health care practice is fourfold:

1. Inform team members so they will be able to cross boundaries that separate professionals from one domain to another
2. Develop curricula to educate the learner to work more collaboratively and more respectfully with patients and other health care providers and to push the boundaries of their job in the context of holistic care

Dr. Verma is Deputy Dean, Faculty of Medicine, and Vice Dean, Postgraduate Medical Education, University of Toronto, Toronto, Ontario; Ms. Broers was formerly Project Manager, QUIPPED Project, Queen’s University; Dr. Paterson is Associate Professor and Chair, Occupational Therapy Program, School of Rehabilitation Therapy, Queen’s University; Dr. Schroder is Assistant Professor in Departments of Oncology and Family Medicine, Director of Palliative Medicine Residency Program, Palliative Care Medicine Program, and Director of the Office of Interprofessional Education and Practice, Queen’s University; Dr. Medves is Associate Professor and Director of Practice and Research in Nursing Group, School of Nursing, Queen’s University; and Ms. Morrison is Faculty of Education, Queen’s University, Kingston, Ontario, Canada.

Address correspondence and reprint requests to: Sarita Verma, Deputy Dean, Faculty of Medicine, University of Toronto, 500 University Ave., Suite 602, Toronto, Ontario M5G 1V7, Canada. Tel 416-978-6709; email sarita.verma@utoronto.ca.
3. Alert the government and academics who can change how systems fund, regulate, appraise, and sustain effective frontline practice
4. Promote a new, more integrated and consistent way of thinking about knowledge, practice, program design, and policy in interprofessional education.

Competence is a multifaceted and dynamic concept that refers to the understanding of knowledge, clinical skills, interpersonal skills, problem solving, clinical judgment, and technical skills by the different professions. In healthcare, competencies are generally used to define professional and specialty standards and expectations and to align practitioners, learners, teachers, and patients with evidence-based standards of healthcare and performance.

All professional colleges and associations provide standards and guidelines for their members that reflect the knowledge, skills, and judgment that a professional requires to perform specific services and procedures. These guidelines may be labeled in various ways—codes of ethics, comprehensive guidelines, standards of professional conduct, standards of practice, and/or essential competencies—but all refer to the essential responsibilities and competencies required of the professionals in question.

Core competencies represent a set of skills, knowledge, and attitudes necessary for the comprehensive practice of clinical care. They transcend the boundaries of the specific professions and give important transparency to clinical teams to minimize errors and enhance patient outcomes and safety. A unit of competency is a component of a competency standard and is a statement of a key function or role in a particular job or occupation. We suggest that many units are the same for many professions and thus can be translational for team-based assessments between and among healthcare teams. Health care teams are generally defined as a group of diverse clinicians who communicate (either face to face, virtually, through charts, and so on) with each other about the care of a defined group of patients and participate in that care.

Attempts to garner support for cross-cutting competencies for team practice have been met with skepticism by educators and risk managers who insist they are specific to certain professionals within the field. Although profession-specific competencies are necessary for specialized roles within each team, we have shown that common language using core competencies for health professionals may be used to drive the cultural shift needed to reduce individual liability and to transcend the hierarchy in health care. In addition, team competencies will also aid in the development of profession-specific competencies.

Methods

The methods used in this report reflect a continuation of the applied process undertaken in our original core competency article. The categories used for the first model—expert, professional, health advocate, scholar, manager, communicator, and collaborator—were again used for this comparative analysis. These categories are based on the CanMEDS competency framework developed by the Royal College of Physicians and Surgeons of Canada in 2001 and updated in 2005.

The most recent guidelines for the College of Medical Radiation Technologists of Ontario, the Ontario College of Social Workers and Social Service Workers, the College of Psychologists of Ontario, and the Ontario College of Pharmacists were used for this analysis. The competencies for each profession were reviewed, and steps were taken to match them to the core competency framework created in the first report. The steps were as follows:

1. The guidelines were located from the websites or official documents of each new discipline as the current standards.
2. The framework was applied by the authors based on common language used in the guidelines.
3. The applied framework, content, and terminology were considered and confirmed by practicing members of the discipline as a consultative expert panel. This panel was versed in the framework used in our first report and well appraised of the CanMEDS framework. In this way, we cross-referenced and verified the validity of our judgments on the illustration of the framework by real practitioners.

Only those competencies that “fit” into the framework were considered in this exercise. There was no attempt to categorize any competency that did not fit into the framework. These were almost nonexistent and did not have an impact on the framework. In fact, we would submit that almost all competencies outside of expert scope of practice that is specialty specific fall within the framework because the competencies are very inclusive.

The process of matching the profession-specific competencies to the framework was key to extrapolating the model described in our first report and applying the common terminologies on competencies across disciplines.

Profession-specific Competencies

Each of the professional colleges listed in the following text provides quality assurance of their members by detailing their professional expectations. The following is a list of expectations by college. Each expectation, standard, or principle is followed by a number in parentheses that indicates the number of subheadings encompassed within the main heading. The lists show the broad scope of competencies covered by each of the colleges.

Medical Radiation Technologists

The College of Medical Radiation Technologists of Ontario is the regulatory body for medical radiation technologists in Ontario. Medical radiation technology is a regulated profession under Ontario’s Regulated Health Professions Act
The mission of the College of Medical Radiation Technologists of Ontario is to protect the public through the self-regulation of practice of the profession of medical radiation technology.

The College of Medical Radiation Technologists of Ontario, with the assistance of practicing medical radiation technologists, managers, and faculty members, has developed a number of publications that define the standards of practice for the profession and provide information and guidance on other professional practice issues. The college has produced a list of essential competencies for their standards of practice.7 The essential competencies and comprehensive guidelines are intended to be used in conjunction with the code of ethics.6 Each competency listed is further detailed by a set of indicators, the number of which is listed in parentheses. The essential competencies include the following:

- Adherence to legislation, standards of practice, and code of ethics (5 indicators)
- Knowledge, skills, and judgment to select appropriate equipment (14 indicators)
- Ability to create accurate images (13 indicators)
- Knowledge, skills, and judgment to practice safely (17 indicators)
- Ability to accept patient autonomy and the rights of the patient (13 indicators)
- Proficiency in creating records, charts (9 indicators).

Social Workers and Social Service Workers

Social workers are regulated under their own Social Work and Social Service Work Act (1998).13 College membership is required for any person in Ontario who wishes to use the title of social worker or social service worker and/or registered social worker or registered social service worker. The standards of practice handbook8 sets out minimum standards of professional practice and conduct for members of the Ontario College of Social Workers and Social Service Workers. This is in accordance with one of the objectives of the college as stated in the Social Work and Social Service Work Act, which is “to establish and enforce professional standards and ethical standards applicable to members of the College” (part 1). The standards of practice handbook contains eight principles.8 For each principle, interpretations are provided to guide college members. The eight principles are summarized in the following text, with the number of interpretations in parentheses:

- Clients and members jointly address relevant social and/or personal problems of concern to clients (8 interpretations)
- Maintain competence and integrity in their practice and adhere to the college standards (17 interpretations)
- Ensure that professional services are provided responsibly to those seeking assistance (13 interpretations)
- Create and maintain records (23 interpretations)
- Respect the privacy of clients by holding in strict confidence all information about clients (17 interpretations)
- Inform clients fully about fees, charges, and collection procedures (8 interpretations)
- Ensure that advertisements are compatible with the standards and ethics of the social work and social service work professions (15 interpretations)
- Do not engage in behavior of a sexual nature with clients (13 interpretations).

It must be noted that although social workers or social service workers are not regulated health professionals, they are integral members of a health care team. Their successful inclusion in the application of this core competency framework enables their effective participation in interprofessional activities as members of the health care team.

Psychologists

The College of Psychologists of Ontario is the governing body for psychologists and psychological associates in Ontario. Through the participation of the public and the profession, the college ensures the public receives competent and ethical professional psychological services from qualified providers. The college is mandated under the authority of the Regulated Health Professions Act (1991).12 and the Psychology Act (1991).14 The standards of professional conduct,9 which became effective in 2005, lists 14 standards with subheadings:

- Acceptance of regulatory authority of the college (5 subheadings)
- Compliance with statuses and regulations (1 subheading)
- Meeting client needs (5 subheadings)
- Supervision (5 subheadings)
- Competence (2 subheadings)
- Representation of services (5 subheadings)
- Consent to services (2 subheadings)
- Privacy (2 subheadings)
- Records and record keeping (12 subheadings)
- Fees (5 subheadings)
- Impairment (1 subheading)
- Professional objectivity (6 subheadings)
- Harassment and sexual relationships (3 subheadings)
- Assessment (9 subheadings).

Pharmacists

The Ontario College of Pharmacists is the registering and regulating body for pharmacy in Ontario. All persons within Ontario who wish to dispense prescriptions and sell products defined as drugs to the public must register as pharmacists with the college. The college is set up under authority of the Pharmacy Act (1991).15 The college administers the Pharmacy Act (1991),15 the Drug and Pharmacies Regulation Act (1990),16 and portions of the Drug Interchangeability and Dispensing Fee Act (1990)17.
and the Regulated Health Professions Act (1991). Drug distribution is governed by the Drug and Pharmacies Regulation Act (1990), the Ontario Drug Benefit Act (2007), and the Transparent Drug System for Patients Act (2006). The college developed an expanded version of their standards of practice, which came into effect in January 2003. The standards of practice list six principal standards, with many operational components:

- Practices patient-focused care (8 components; 20 subcomponents)
- Practices with legal requirements and ethical principles (4 components; 7 subcomponents)
- Identifies, evaluates, interprets, and provides appropriate drug and pharmacy practice information (5 components)
- While respecting the patient’s right to confidentiality, communicates and educates to provide optimal care (5 components; 11 subcomponents)
- Manages drug distribution (7 components; 11 subcomponents)
- Applies knowledge, principles, and skills of management (3 components; 3 subcomponents).

In addition to the standards of practice, the college also has a code of ethics with eight principles.

### Results

The core competency framework applied to medical radiation technology, social work, psychology, and pharmacy is summarized in Table 1.

### Discussion

Four concepts—crossing boundaries, collaborating with patients, changing policy, and integrating thinking—are important aspects of the reform of health care services and of interprofessional education today. If professionals understand and respect the core competencies that they share, then interprofessional collaboration can be accomplished in education and practice. Defining these common competencies using universal and familiar terminology similarly facilitates the development of accreditation standards for interprofessional teams, efficient management of regulatory issues, and reduction of the regulatory and medicolegal barriers that might inhibit health care professionals from working together on an collaborative basis. As Lahey and Currie describe it,

There is strong consensus that regulators have a tendency to place their own professional interest in control of a scope of occupational turf ahead of their obligation to serve the broader public interest. The implication is that self-regulation as an institution is not the problem. Instead, it is the way in which regulatory powers are being used by self-governing professions and, in particular, with inadequate regard for the pressing need for system level integration, cooperation and collaboration.

The harmonized framework applied to medical radiation technology, social work, psychology, and pharmacy illustrates that core competencies as described by the CanMEDS framework are already covered in large part by each of the regulated and unregulated professions described in our first paper and this sequel report. On one side note, we found that the collaborator role, which is a key role for all health care professionals in effective patient-centered care, was described only in reference to confidentiality and record keeping in the standards of practice for social work and psychology, rather than as an overarching competency.

Given the imperative to foster and develop interprofessional collaboration in the health services, the authors have extended the harmonized model created by Verma et al. to characterize the competencies needed by medical radiation technology, social work and social service work, psychology, and pharmacy professionals working together in the health services in Ontario, Canada. The model will give professionals an opportunity to recognize the competencies they share and promote increased respect, trust, and appreciation for their colleagues. The table of core competencies may be used in developing curricular changes in areas where there is overlap and where opportunities exist to provide a shared learning opportunity to students in the health care professions mentioned. In addition, the public may find the tables useful in monitoring the health services they receive. By extending core competencies across regulated and unregulated health care professionals, we hope to enable each of these desired outcomes. We know that team members, especially early learners but also seasoned faculty, tend to distort roles if these are ill defined. Calls for shared borders and language, especially in common means of evaluation across core competencies, as expected by the public, will only reinforce the shared responsibility for team quality. As Max D. Ray pointed out:

To make the transition from multidisciplinary to interdisciplinary practice, all disciplines, rather than representing freestanding silos, must have shared borders that represent a common professional interest and knowledge base. Such a practice model will lead to an increased level of trust among professions and a deeper level of understanding about what each profession can contribute.

We would submit that the absence of a framework on evaluation is a barrier; the use of our approach will facilitate systems with the move to interprofessional care evaluation tools that demonstrate the same expectations of learners and staff on the seven roles as experts in their fields, communicators, collaborators, advocates, scholars, managers, and professionals.

Our first report on integrating the concept of core competencies created the model that saw medicine, occupational therapy, physical therapy, and nursing aligned with a
<table>
<thead>
<tr>
<th>Units of Competency</th>
<th>Medical Radiation Technologists\textsuperscript{6,7}</th>
<th>Social Workers and Social Service Workers\textsuperscript{5}</th>
<th>Psychologists\textsuperscript{9}</th>
<th>Pharmacists\textsuperscript{10,11}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, including health advocate</td>
<td>Understands, and adheres to, the legislation governing the practice of the profession Adheres to ethical principles of confidentiality, patient autonomy, and so on</td>
<td>Provides professional services responsibly to those persons, groups, or organizations seeking their assistance Advocates for the client as the primary professional obligation Respects client privacy and holds client information in strict confidence Exhibits appropriate boundaries in professional relationships for the protection of clients</td>
<td>Complies with the regulatory authority of the college, including that he or she shall not undertake or continue to provide services when the member is, or could reasonably be expected to be, impaired Recognizes and informs clients of the limits of confidentiality Adheres to ethical principles related to informed consent for, use, and disclosure of personal information</td>
<td>Practices within legal requirements and ethical principles, demonstrates professional integrity, and acts to uphold professional standards of practice Practices under conditions that do not compromise his or her professional independence or judgment and does not impose such conditions on other pharmacists Respects patient's right to confidentiality Demonstrates a caring and professional attitude</td>
</tr>
<tr>
<td>Expert</td>
<td>Has the knowledge, skills, and judgment to select the appropriate equipment and materials for procedures ordered Has the knowledge, skills, and judgment to practice safely by adhering to all relevant provincial and federal legislation Creates images that are sufficiently accurate and clear for diagnostic or treatment purposes</td>
<td>Provides assessment, diagnosis, treatment, and evaluation of individual, interpersonal, and societal problems through the use of social work knowledge, skills, interventions, and strategies to clients to achieve optimum psychosocial and social functioning</td>
<td>Provides services within the boundaries of his or her competence, including psychological services related to evaluation, diagnosis, and assessment of individuals and groups Knows the standardization, norms, reliability, and validity of any tests, techniques, and interventions with the proper use and application of these tests, techniques, and interventions</td>
<td>Identifies, evaluates, interprets, and provides appropriate drug and pharmacy to achieve safe and effective patient care Ensures authenticity, accuracy, appropriateness, and completeness of prescriptions received Evaluates a patient's drug therapy and identifies potential and actual drug-related problems and determines appropriate therapeutic options to solve or prevent such problems Documents and reports any unexpected adverse drug reactions Takes appropriate action to acknowledge and prevent medication discrepancies and errors</td>
</tr>
<tr>
<td>Scholar</td>
<td>Promotes excellence in the profession by contributing to the development of the art and science of medical radiation technology through continuing education and research</td>
<td>Is committed to ongoing professional development and maintaining competence in their practice</td>
<td>Contributes to the discipline of psychology and of society's understanding of itself and humans generally, through free inquiry and the acquisition, transmission, and expression of knowledge and ideas Keeps informed of progress in their area(s) of psychological activity, practices based on this progress, and tries to contribute to this progress</td>
<td>Critically evaluates drug information Identifies learning needs and seeks, evaluates, and participates in learning opportunities to meet these needs to enhance practice through education and experiential learning</td>
</tr>
<tr>
<td>Units of Competency</td>
<td>Medical Radiation Technologists&lt;sup&gt;6,7&lt;/sup&gt;</td>
<td>Social Workers and Social Service Workers&lt;sup&gt;8&lt;/sup&gt;</td>
<td>Psychologists&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Pharmacists&lt;sup&gt;10,11&lt;/sup&gt;</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------------------------------</td>
<td>------------------------------------------------</td>
<td>--------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Manager</td>
<td>Is proficient in creating records, charts, and incident and other reports that attest to the diagnostic, treatment, quality assurance, workplace, and patient safety procedures that have been performed</td>
<td>Ensures that records are current, are accurate, contain relevant information about clients, and are managed in a manner that protects client privacy</td>
<td>Assumes responsibility for the planning, delivery, supervision, and billing practices of all the psychological services he or she provides to a client</td>
<td>Applies knowledge, principles, and skills of management as they pertain to the site of pharmacy practice</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Manages drug distribution by performing, supervising, or reviewing the functions of selection, preparation, distribution, storage, and disposal of drugs to ensure safety, accuracy, and quality of supplied products</td>
</tr>
<tr>
<td>Communicator</td>
<td>Provides clear and understandable information to the patient, or the patient's substitute decision maker, as well as answers to their questions within the scope of the medical radiation technologist's responsibility</td>
<td>Observes, clarifies, and inquires about information presented by clients. Maintains easily understandable records, avoiding vague, unclear, or obscure language and symbols</td>
<td>Makes efforts to present information in a manner that is to be understood by the client</td>
<td>Establishes and maintains rapport by using effective communication skills. Communicates and educates to provide optimal patient care and promote health</td>
</tr>
<tr>
<td>Collaborator</td>
<td>Develops and maintains positive, collaborative relationships with colleagues and other health professionals. Refers questions of the patient, or the patient's substitute decision maker, that are outside the scope of the medical radiation technologist's responsibility to an appropriate health care professional for</td>
<td>In reference to confidentiality, members explain to clients the need to share information with members of multidisciplinary teams. Participates in the development, promotion, management, administration, delivery, and evaluation of human service programs, including that done in collaboration with other professionals.</td>
<td>In reference to record keeping, members working in an interdisciplinary setting where a common filing system is used should exercise appropriate care when placing information in a common file in order to ensure that his or her reports and recommendations are not misunderstood by members of other disciplines.</td>
<td>Practices patient-focused care in partnership with patients and other health care providers to achieve positive health outcomes and/or to maintain or improve quality of life for the patient. Collaborates with other health care professionals to enable the patient to achieve his or her health care goals.</td>
</tr>
</tbody>
</table>
common language and set the stage for the changes needed for teaching and evaluating interprofessional education. This report extends our model to medical radiation technology, social work, psychology, and pharmacy. Only when these concepts have been applied and demonstrated to each profession can we move to the next level, namely, a generic tool based on our model that will enable all health care professions using a core competency system to describe domain and set skill levels with a common language. This tool will help assess whether professionals are aware of the others’ competencies, whether they can function in these competencies, and whether they can evaluate these competencies with confidence.

The main recommendations are as follows:

1. Identify the core competencies; if they do not exist, some translational work may be needed to make implicit functions explicit for the team.
2. Set shared vocabularies and interpretive guidelines for each of the seven CanMEDS roles within each discipline.
3. Categorize each role within the framework as described in this report and the first report.
4. Take the communal themes and provide a generic tool for 360° assessment of any team member. The circle, or perhaps more accurately the sphere, of 360° feedback sources consists of supervisors, peers, subordinates, customers, and one’s self.
5. Make this assessment mandatory for teams learning and functioning in interprofessional education and practice.

The authors thank Kelly Hubbard, John McBride, and Debbie Docherty for reviewing the competency table from their professional perspectives.

REFERENCES