

AFFAIRS & BEST PRACTICE
GUIDELINES

TRANSFORMING NURSING THROUGH KNOWLEDGE

System and Healthy
Work Environment
Best Practice Guidelines

**MAY 2016** 

# Practice Education in Nursing





Registered Nurses' Association of Ontario L'Association des infirmières et infirmiers autorisés de l'Ontario

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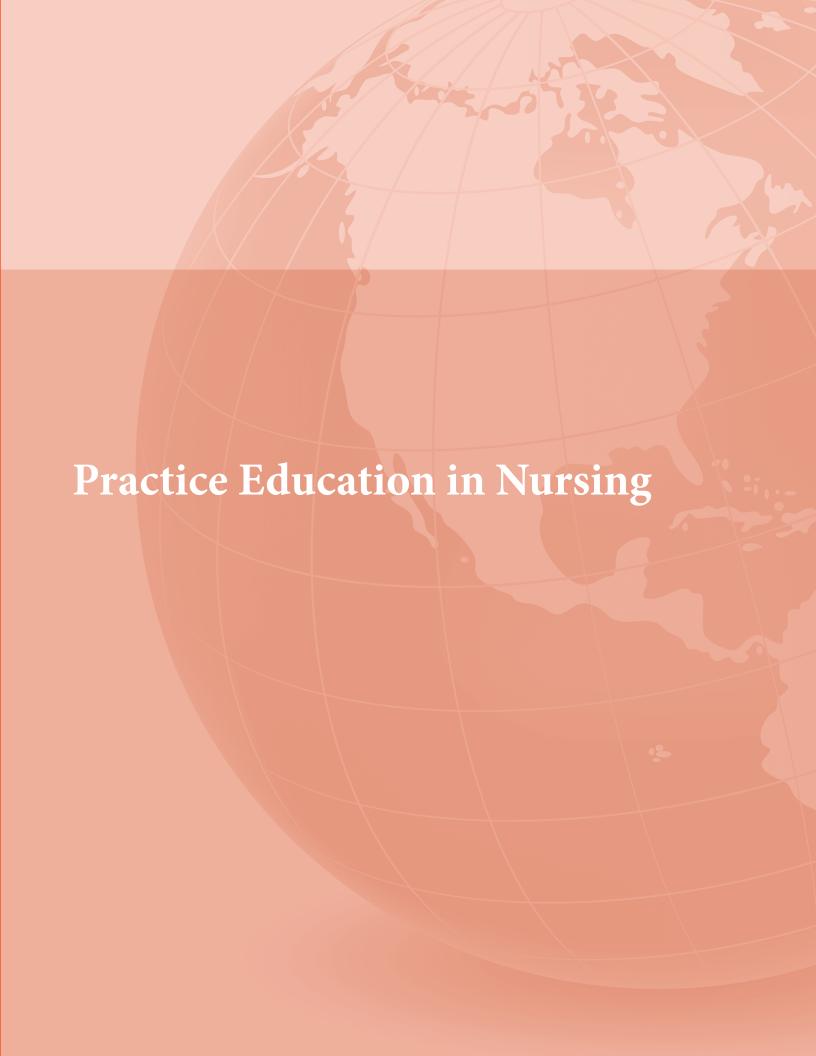
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# Greetings from Doris Grinspun,

# Chief Executive Officer, Registered Nurses' Association of Ontario



The Registered Nurses' Association of Ontario (RNAO) is delighted to present the system and healthy work environment best practice guideline, Practice Education in *Nursing*. Evidence-based practice supports the excellence in service and education that faculty and health professionals are committed to supporting every day. RNAO is pleased to provide this key resource to enhance practice education for nursing

We offer our heartfelt thanks to the many stakeholders who are making our vision for best practice guidelines a reality, starting with the Government of Ontario for recognizing RNAO's ability to lead the program and for providing multi-year funding. For their invaluable expertise and leadership, I wish to thank Dr. Irmajean Bajnok, Director of the RNAO International Affairs and Best Practice Guidelines

Centre; Dr. Michelle Rey, Associate Director of Evidence and Guideline Development; and Heather McConnell, Associate Director of Guideline Implementation and Knowledge Transfer, who along with Laura Legere, Nursing Research Associate, co-led this Guideline. I also want to thank the co-chairs of the expert panel, Charlotte Noesgaard, Associate Professor at McMaster University, and Kirsten Krull, Vice President of Quality and Performance and Chief Nursing Executive at Hamilton Health Sciences, for their exquisite expertise and stewardship of this Guideline. Thanks also to RNAO staff Oliwia Klej, Project Coordinator, and the rest of the RNAO best practice guideline program team for their intense work in the production of this new Guideline. Special thanks to the members of the expert panel for generously providing time and expertise to deliver a rigorous and robust resource for faculty, students, and staff. We couldn't have done it without you!

Successful uptake of best practice guidelines requires a concerted effort from educators, clinicians, employers, policymakers, and researchers. The nursing and health-care community, with its commitment and passion for excellence, has provided the expertise and countless hours of volunteer work essential to the development and revision of each best practice guideline. Leaders, staff, and faculty in academia and service have responded enthusiastically by nominating best practice champions, implementing guidelines, and evaluating their impact on students, patients, and organizations. Governments at home and abroad have joined in this journey. Together, we are building a culture of evidence-based practice and education.

We invite you to share this Guideline with your colleagues in practice and academia from other professions —and with students, patients, and families—because we have so much to learn from one another. Together, we must ensure that students receive the best possible education and that members of the public receive the best possible care every time they come in contact with us.

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Chief Executive Officer

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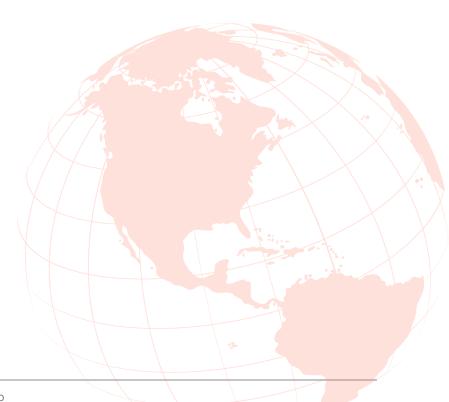
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# How to Use this Document

This nursing Best Practice Guideline<sup>G\*</sup> (BPG) is a comprehensive document that provides resources for evidence<sup>G</sup>-based nursing practice and education. It is not intended to be a manual or "how-to" guide; rather, it is a tool to guide best practices and enhance decision making for nurses<sup>G</sup> who are educating, precepting, or mentoring<sup>G</sup> undergraduate nursing students<sup>G</sup> in an academic institution or a clinical practice setting. This Guideline should be reviewed and applied in accordance with both the needs of individual organizations or service agencies and the educational institutions that are supporting the education of undergraduate nursing students. The Guideline also provides an overview of appropriate structures and supports for providing the best possible evidence-based practice education.

Nurses, other health-care providers and administrators who lead and facilitate education and practice changes will find this document invaluable for developing policies, procedures, protocols, clinical courses, and educational programs. Nurses and other health-care providers in direct care who work with and act as preceptors<sup>G</sup> or mentors for nursing students will benefit from reviewing the recommendations and the evidence that supports them. We particularly recommend that educational institutions and their partner service agencies adopt this Guideline in a collaborative way to influence practice education across service and academia.

If your educational institution or organization is adopting this Guideline, we recommend you follow these steps:

- 1. Assess your nursing and health-care practice education using the recommendations in this Guideline,
- 2. Identify which recommendations will address needs or gaps in services, and
- 3. Develop a plan for implementing the recommendations in collaboration with your partner service agency or educational institution.

Implementation resources, including the Registered Nurses' Association of Ontario (RNAO) *Toolkit: Implementation of Best Practice Guidelines* (2012), (<a href="http://rnao.ca/sites/rnao-ca/files/RNAO">http://rnao.ca/sites/rnao-ca/files/RNAO</a> ToolKit 2012 rev4 FA.pdf), are available at <a href="http://www.RNAO.ca">www.RNAO.ca</a>. We are interested in hearing how you have implemented this Guideline—please contact us to share your story.

\* Throughout this document, terms marked with a superscript G (<sup>G</sup>) can be found in the Glossary of Terms (Appendix A).

# Purpose and Scope

Best practice guidelines (BPG) are systematically developed statements designed to assist nurses working in partnership with persons<sup>G</sup> and their families to make decisions about health care and services (Field & Lohr, 1990). This nursing BPG is to be used by nurses, nurse managers, or leaders in the practice setting, by educators and clinical instructors in the academic setting, and by other members of the interprofessional health-care team<sup>G</sup>. Its goal is to enhance the quality<sup>G</sup> of practice education provided to undergraduate nursing students and improve clinical outcomes through the use of evidence-based practices. This Guideline applies to all domains of nursing education and all settings where undergraduate nursing students are educated and nurses are employed.

The purpose of this Guideline is to provide evidence-based recommendations that promote and sustain the undergraduate nursing student's application of knowledge to practice in a variety of clinical learning environments. The Guideline explores the relationships among and between students and nursing educators<sup>G</sup>, nursing staff, preceptors, and diverse health-care team members, and it considers their influence on the quality of practice education, professional socialization, and nursing excellence. The recommendations will help nurse educators, preceptors, staff nurses<sup>G</sup>, and other members of the interprofessional health-care team better understand how to foster and support effective teaching and learning strategies in a variety of practice settings, as well as how they can advocate for change. The context of the Guideline is framed within the system of interaction amongst educational institutions, service agencies and policy-makers, with specific recommendations for each entity. However, educational institutions and service agencies involved in implementing this Guideline will find that many of the recommendations are applicable to both entities and require collaborative efforts between the two.

#### Who is Involved in Practice Education?

Quality practice education depends on the interaction and collaboration of many individuals and organizations. Specifically, there are five roles that will be referenced throughout this Guideline that are directly involved in the teaching and learning process of practice education:

- 1. The undergraduate nursing student—referred to as nursing student throughout this Guideline—is an individual enrolled in a baccalaureate nursing program from an accredited educational institution who is acquiring new clinical competencies in a practice setting (Canadian Nurses Association, 2004);
- 2. The preceptor is the teacher, expert, or specialist who gives practical nursing experience and training to a student within a clinical practice setting and "who has achieved at least the novice-level competencies required by the participant" (Canadian Nurses Association, 2004, p. 14);
- 3. The members of nursing faculty—referred to as nursing educators throughout this Guideline—are those employed by an educational institution to provide integrative teaching that can be transferred from a classroom to a clinical environment (Canadian Association of Schools of Nursing [CASN], 2011a, 2011b);
- 4. The clinical nursing instructor<sup>G</sup> is the registered nurse responsible for providing professional development guidance and support to students during a clinical practice experience (Levy et al., 2009). The clinical nursing instructor may be employed by the academic institution and/or the service agency where the experience is occurring; and
- 5. Staff nurses are the registered nurses employed by a service agency who are often involved in formally or informally mentoring students during their clinical practice education experiences (Drennan, 2002). Staff nurses providing mentorship can range from senior and experienced leaders to newer graduates of nursing programs who are familiar with the student experience (Canadian Nurses Association, 2004).

In addition to these individual roles, contributions to quality practice education on an organizational level are made by service agencies, educational institutions, and policy-makers. Service agencies include any clinical or community setting where students receive clinical practice learning experiences, and educational institutions are institutions of higher learning that offer baccalaureate programs in nursing (Canadian Nurses Association, 2015). Policy-makers include those in positions of power who influence the allocation of resources and distribution of funding for nursing education programs (National League for Nursing [NLN], 2007).

### **Guideline Scope**

This Guideline was developed to identify and describe best practices in practice education for the undergraduate nursing student in order to ensure that nurses entering practice meet competencies related to safe, ethical and effective practice (Canadian Nurses Association, 2004). While the term undergraduate nursing student is used throughout the recommendations, this Guideline will also be applicable for practice education planning and implementation in college programs for registered practical nurses. The scope of this Guideline, however, excludes the following topic areas:

- specific practice education curricula within educational programs and how it influences readiness to practise,
- graduate or doctoral-level nursing students,
- accreditation<sup>G</sup> standards,
- classroom theory, and
- specific recommendations for how to develop programs for students with academic accommodation needs.

These areas have been excluded because they often include their own unique framework and guiding principles that require specific considerations beyond the scope of this Guideline.

# **Literature Search and Appendices**

The majority of the literature for this Guideline extends across a 10-year time span, with the exception of some seminal works from the past. As a result, there is a range of literature included within the discussions of evidence, yet there was considerable consistency in findings between early and more current research, lending strength to the recommendations. The literature review uncovered some of the challenges to nursing education research, as many studies had lower levels of evidence, small sample sizes, occurred at a single site and at one specific point in time, and were not replicated. However, based on panel consultation, stakeholder<sup>G</sup> review, and the studies yielded, the recommendations remain current and relevant for practice education in nursing. More detailed information on the literature review process for this Guideline can be found in **Appendix C**. Research gaps are also addressed after the recommendations on page 45.

A reference list and further resources (including a glossary of terms and a description of how this Guideline was developed) can also be found in the appendices that follow the recommendations. See **Appendix A** for a glossary of terms and see **Appendix B** for the guideline development process. The remaining appendices include a table of literature on the skills and characteristics of preceptors (**Appendix D**), strategies for providing clinical feedback (**Appendix E**), and information on the NLN Jeffries Simulation Theory (2016) and steps for developing a simulation learning<sup>G</sup> experience (**Appendix F**).

# **Summary of Recommendations**

RECOMMENDATIONS FOR EDUCATIONAL INSTITUTIONS		LEVEL OF EVIDENCE
1.0 Students	Recommendation 1.1:  Provide opportunities for students to share and purposefully reflect on practice education experiences with faculty, preceptors, and student colleagues using initiatives such as journaling, peer sharing, and technology.	III
	Recommendation 1.2:  Incorporate student placements that promote the transferability of skills and knowledge across the spectrum of care, including, but not limited to, the use of acute settings, community settings, and service-learning.	III
2.0 Preceptors	<ul> <li>Recommendation 2.1:</li> <li>Provide nursing preceptors with a structured, participatory professional development and education program, implemented in collaboration with the service agency, that includes</li> <li>information about teaching strategies and theory;</li> <li>information about addressing students' clinical goals, objectives, scope of practice, and unsafe practice;</li> <li>specific guidance on implementing a standardized approach to role modelling as a clinical teaching strategy; and</li> <li>the importance of an orientation meeting with the student for establishing trusting, continuous relationships and mutual expectations for the experience.</li> </ul>	IV
	Recommendation 2.2:  Facilitate collaboration—in partnership with service agencies—among preceptors, students, and nursing faculty members through frequent and clearly established communication strategies that are tailored to the practice education context.	IV

RECOMMENDATIONS FOR EDUCATIONAL INSTITUTIONS		LEVEL OF EVIDENCE
3.0 Faculty	Recommendation 3.1:	
	Prepare nurse educators engaged in practice education with the knowledge and skills that contribute to a positive, high quality learning environment, including	IV
	<ul><li>pedagogy to facilitate practice education learning; and</li></ul>	
	assessment strategies and evaluation of learning outcomes.	
	Recommendation 3.2:	
	Ensure that clinical nursing instructors possess current theoretical knowledge and clinical expertise and support ongoing professional development opportunities to promote the transfer of theory to practice.	IV
4.0 Curriculum	Recommendation 4.1:	
	Incorporate high-quality simulated learning experiences in the curriculum to compliment practice education, taking into account the following:	
	<ul><li>simulation is not a replacement for practice education;</li></ul>	
	<ul><li>simulation experiences require faculty proficient in simulation teaching;</li></ul>	lb-V
	<ul> <li>opportunities for structured debriefing following simulation learning strengthen the experience; and</li> </ul>	
	<ul> <li>quality simulation experiences require adequate time, preplanning, and attention to group size.</li> </ul>	
	Recommendation 4.2:	
	Integrate innovative strategies into the curriculum that promote critical thinking in nursing students to prepare them for the transition to practice, including class discussions of key clinical issues or case studies, reflective writing, and the use of virtual health-care settings.	III

RECOMMENDA	TIONS FOR SERVICE AGENCIES	LEVEL OF EVIDENCE
5.0 Service Agencies	Recommendation 5.1:  Engage in ongoing collaboration with educational institutions to develop strategies that promote a supportive learning environment for nursing students and encourage communication between service agency staff nurses and nursing faculty members.	IV
	Recommendation 5.2:  Create mutually beneficial partnerships with academic nursing programs that foster quality practice education and support strategies to address gaps in services, including offering clinical instructor roles to nursing staff and increasing recruitment of new graduates.	la
	Recommendation 5.3:  Provide interprofessional learning experiences for nursing students that foster collaboration and mutual goal setting with other health disciplines in the process of care or program delivery.	la

SYSTEM LEVEL AND POLICY RECOMMENDATIONS		LEVEL OF EVIDENCE
6.0 System Level and Policy	Recommendation 6.1:  Advocate for policies that enable sufficient funding for and access to qualified faculty, adequate clinical placements, and collaborative relationships with service partners to support quality practice education for nursing students.	V
	Recommendation 6.2:  Prioritize programs of research that are designed and funded to advance understanding of the strategies that improve quality practice education in nursing and impact the science of nursing education.	V

# Interpretation of Evidence

Levels of evidence are assigned to study designs to rank how well that design is able to eliminate alternate explanations of the phenomena under study. The higher the level of evidence, the greater the likelihood that the relationships presented between the variables are true. Levels of evidence do not reflect the merit or quality of individual studies.

Table 1. Levels of Evidence

LEVEL	SOURCE OF EVIDENCE
la	Evidence obtained from meta-analysis <sup>G</sup> or systematic reviews <sup>G</sup> of randomized controlled trials <sup>G</sup> , and/or synthesis of multiple studies primarily of quantitative research.
Ib	Evidence obtained from at least one randomized controlled trial.
lla	Evidence obtained from at least one well-designed controlled study <sup>G</sup> without randomization.
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study <sup>G</sup> , without randomization.
Ш	Synthesis of multiple studies primarily of qualitative research <sup>G</sup> .
IV	Evidence obtained from well-designed non-experimental observational studies, such as analytical studies <sup>G</sup> or descriptive studies <sup>G</sup> , and/or qualitative studies.
V	Evidence obtained from expert opinion or committee reports, and/or clinical experiences of respected authorities.

Sources: Adapted from the Scottish Intercollegiate Guidelines Network (Scottish Intercollegiate Guidelines Network [SIGN], 2011) and D. Pati (2011).

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This Guideline is dedicated to Pat Griffin RN, PhD, who was the Executive Director of the Canadian Association of Schools of Nursing from 2005 to 2007. Dr. Griffin was keenly in support of this work and had accepted the invitation to chair the Guideline expert panel just prior to her passing. We thank her for her unwavering commitment and passion to nursing education and scholarship.

Declarations of interest that might be construed as constituting an actual, potential or apparent conflict were made by all members of the Registered Nurses' Association of Ontario (RNAO) expert panel, and members were asked to update their disclosures regularly throughout the guideline development process. Information was requested about financial, intellectual, personal and other interests and documented for future reference. No limiting conflicts were identified. Further details are available from the RNAO.

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# Stakeholder Acknowledgement

As a component of the guideline development process, RNAO is committed to obtaining feedback from nurses from a wide range of academic and practice settings and roles, from knowledgeable administrators and funders of health-care services, and from stakeholder associations. Stakeholders representing diverse perspectives were solicited\* for their feedback, and RNAO wishes to acknowledge the following individuals for their contribution in reviewing this Guideline.

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\*Stakeholder reviewers are individuals who have expertise in the subject matter of the Guideline or representatives of organizations that are involved in (or affected by) the implementation of the Guideline. Reviewers may be clinical educators, faculty members, nursing students, staff nurses, other point-of-care health-care providers, nurse executives, administrators, research experts, members of the interprofessional team, or patients. RNAO aims to solicit stakeholder expertise and perspectives representing a diversity of health-care sectors, academic settings, roles within nursing and other professions (e.g., clinical practice, research, education, and policy), and geographic locations.

Stakeholder reviewers for RNAO guidelines are identified in two ways. First, stakeholders are recruited through a public call issued on the RNAO website (<a href="http://rnao.ca/bpg/get-involved/stakeholder">http://rnao.ca/bpg/get-involved/stakeholder</a>). Second, key individuals and organizations with expertise in the Guideline topic area are identified by the RNAO guideline development team and expert panel members and are directly invited to participate in the review.

Reviewers are asked to read a full draft of the Guideline and participate in the review prior to its publication.

Stakeholder feedback is submitted on-line by completing a survey questionnaire. The stakeholders are asked the following questions about each recommendation:

- Is this recommendation clear?
- Do you agree with this recommendation?
- Does the evidence support this recommendation?
- Does this recommendation apply to all roles, regions and practice settings?

The survey also includes opportunities to include comments and feedback for each section of the Guideline.

Survey submissions received are compiled and feedback is summarized by the RNAO guideline development team. The guideline development team reviews and considers all feedback, modifying the Guideline content and recommendations as necessary prior to publication to address the feedback received.

Stakeholder reviewers have given consent to the publication of their names and contact details in this guideline.

# **Background Context**

Quality practice education today is pertinent to quality health care in the future, and it must be a priority of nursing educators, administrators, practitioners, students, and the public alike. Today's students must learn to appreciate the complexities of the work environment and to practise competently within it, using best evidence to guide their clinical and management decision making, both now and in the future. Practice education is an approach to nursing education that involves the integration and application of theoretical concepts by students within a real or simulated clinical setting (CASN, 2005). Practice education experiences enable nursing students to expand upon nursing theory<sup>G</sup> learned in the classroom in order to demonstrate safe, ethical, and effective care provided through clinical skills. It also allows them to develop their clinical competence<sup>G</sup> and judgment in complex patient situations (CASN, 2005). Practice education for undergraduate nursing students is primarily supervised by registered nurses with extensive theoretical and practice experience who preceptor and educate nursing students on clinical skills, critical thinking, and therapeutic communication (Canadian Nurses Association, 2004).

Whether they occur in clinical practice environments or in the context of a simulated clinical lab, practice education experiences are pivotal to nursing students' learning and professional socialization, and to the reduction of the theory-practice gap<sup>G</sup> (Canadian Nurses Association, 2004). While theory and practice depend on one another in practice experiences, with theory outlining the knowledge and principles to explain the reasons for practice, the theory-practice gap represents "the inability to relate and implement ideological knowledge gained in education to the realities of modern-day healthcare practice" (Clark & Holmes, 2007 as cited in Monaghan, 2015, p. e1). The theory-practice gap often begins during a nursing student's education and continues to progress into their practice following completion of their studies (Monaghan, 2015). The effects of this gap are most evident in terms of the clinical skill capabilities that new nurses are expected to practise and can have a substantial effect on nurses' confidence in their ability to take on their required responsibilities and accountabilities (Monaghan, 2015).

Since practice experiences are an integral component of the education of nursing students, it is imperative to find ways to maximize learning opportunities in practice settings (Niederhauser, MacIntyre, Garner, Teel, & Murray, 2010) that help close the theory-practice gap. Specifically, a positive and supportive practice environment culture is needed, which requires collaborative involvement and support from staff nurses working within the designated service agency to contribute to students' development and professional growth as registered nurses (Neiderhauser et al., 2010). It also requires the involvement of nursing educators and clinical nursing instructors working with students. The success of learning through clinical practice is dependent on strong collaborative relationships between the service agency and educational institutions (Levett-Jones, Fahy, Parsons, & Mitchell, 2006), with further support from standard-setting and policy-making bodies relevant to entry-to-practice competencies. The importance of the interaction between all of these groups will be addressed throughout this Guideline.

# Key Themes Identified by the Expert Panel

The expert panel identified several key themes and concepts that directed the original literature search and organized the recommendations in this Guideline. The panel identified that the focus of all practice education activities should be the student learner. Surrounding the student are five elements that interact, at various levels, to influence the student's development as a practitioner. These five elements are: faculty, bridging the theory-practice gap, situational transition, preceptor, and culture of the practice learning environment.

- 1. Faculty at the educational institution have an academic, ethical, and legal responsibility to protect the public and maintain accountability for nursing students' educational development (Boley & Whitney, 2003; Smith, McKoy, & Richardson, 2001).
- 2. *Bridging the theory-practice gap* refers to the ability of educational institutions and service agencies to work collaboratively to ensure that nursing students are provided with the necessary high-quality, practice education learning opportunities that facilitate their development into autonomous practitioners (Monaghan, 2015).
- 3. *Situational transition* refers to changes that can occur in various educational and professional roles, including the transition from student to staff nurse upon completion of an educational program (Schumacher & Meleis, 1994). These transitions occur over time, are divided into stages, and are characterized by changes in an individual's identity, roles, relationships, abilities, and patterns of behaviour (Schumacher & Meleis, 1994).
- 4. The collaborative relationship between the *preceptor*, nursing student, and nursing faculty facilitates the application of theory to practice (Canadian Nurses Association, 2004).
- 5. *Culture of the practice learning environment* is the set of values, beliefs, norms, assumptions, and policies within practice settings that influence student learning and professionalism related to entry-to-practice competencies (Palmer, Cox, Callister, Johnson, & Matsumara, 2005).

Of paramount importance is the interaction between and among educational institutions, service agencies, and policy- and decision-makers in the development of quality practice education for students. Each of these groups has components that must be considered in order to maintain quality practice education. Educational institutions must consider the needs of students, preceptors, educators, and clinical nursing instructors, as well as the curriculum itself. Service agencies must consider the context of the practice environment, the staff nurses, and the interprofessional health-care team as a whole. Policy- and decision-makers overseeing regulation and legislation of the nursing profession must consider the context of both promoting practice education policies and further research in this area. The expert panel identified the key mandates and some related challenges of each of the bodies influencing quality practice education, and it utilized these as a means of guiding the literature review and framing the recommendations.

# **Challenges Faced by Educational Institutions**

The primary focus of educational institutions is to deliver a curriculum that enables graduates to meet the entry-to-practice competencies for nurses (CASN, 2011a). Baccalaureate education provided within an accredited educational institution is required for today's nursing students to enter the nursing profession, and it is essential for developing a foundational level of clinical judgment, critical thinking, and ethical understanding within practice (CASN, 2011a). Educational institutions and service agencies must share responsibility for the education of nursing students within practice settings in a way that is mutually beneficial for both parties (CASN, 2011a). For example, this shared contribution may involve the use of service agency nurses as clinical instructors or collaborative nursing education research initiatives (Connolly & Wilson, 2008). Furthermore, educational institutions are now challenged by the changing needs of the health-care environment in an age of emerging technology (CASN, 2011b), and they must be responsive to integrating these changes into nursing education.

### Challenges Faced by Service Agencies

In today's health-care system, service agencies often are burdened with extending the use of their resources to respond to more complex patient situations and needs, and agencies may struggle to achieve basic workload levels among staff that allow for safe, quality care (Hofler, 2008). The primary role of service agencies is to deliver care services to clients, and in order to do that effectively, these agencies must focus on the recruitment of future nurses to assist with the growing demand for health-care services. One approach to promote recruitment of future nurses is to focus on improving student practice experiences and enabling students to engage with more complex clients as a way of expanding their competencies (Connolly & Wilson, 2008). Students have become an essential element to promoting organizational growth and development for service agencies, although financial burdens surrounding preceptor premiums and educational funding may still exist. Moving forward, service agencies partnering with education institutions need to be guided by new and more collaborative models for student practice education (Connelly & Wilson, 2008).

# Challenges Faced by Policy- and Decision-Makers

Policy- and decision-makers affect practice education in nursing by influencing legislation on nurses' scope of practice and by supporting policies that regulate the distribution of resources that support research and education. They also contribute to the entry-to-practice standards, which are based in nursing scholarship, that influence the development and implementation of nursing practice education (Hofler, 2008). Continued advancement and scholarship of practice education, however, is linked to the availability of—and priority given to—resources to support research and knowledge exchange in nursing education science (Hofler, 2008). Challenges in nursing education research were evident throughout the literature review used to formulate recommendations for this Guideline: the majority of studies were single-site, with small sample sizes and minimal replication. Funding for nursing education research is not an isolated problem, and it is a challenge faced globally by the discipline (NLN, 2007).

# Summary

The nursing student requires a myriad of elements to be aligned in order to successfully experience quality practice education, including the ongoing collaboration between educational institutions, service agencies, and the policyand decision-makers who oversee legislation and regulation of the profession. The following recommendations within this Guideline outline detailed evidence on how these groups can effectively address the practice education of nursing students. Although the majority of evidence was of a low level, it demonstrates the ongoing need for further research and funding in the area of nursing education. It is also important to note that many of the recommendations for educational institutions are also applicable for service agencies and vice versa. As such, it is vital that both educational institutions and service agencies create partnerships to implement both sets of recommendations collaboratively in an effort to promote quality practice education for all nursing students. The five themes that influence student development identified by the expert panel also are important to consider during the planning and implementation of practice education experiences, and they are addressed throughout this Guideline. In order for nursing students to practise competently and continue to thrive in the face of a changing and expanding health-care system, it is essential that quality practice education experiences are continually supported by educational institutions, service agencies, and policy- and decision-makers as a critical component of the nursing curriculum (CASN, 2005).

# Recommendations for Educational Institutions 1.0 STUDENTS

#### **RECOMMENDATION 1.1:**

Provide opportunities for students to share and purposefully reflect on practice education experiences with faculty, preceptors, and student colleagues using initiatives such as journaling, peer sharing, and technology.

Level of Evidence = III

#### Discussion of Evidence:

Student sharing and self-reflection is encouraged as a way for students to engage in dialogue regarding their challenges, stressors, emotions, and successes during clinical practice experiences, while also promoting a supportive and positive practice learning environment (Epp, 2008; Ruth-Sahd, 2011; Walker, Cooke, Henderson, & Creedy, 2013). In addition, using strategies for reflective learning can not only contribute to nursing students' development of knowledge, skill, and confidence in providing compassionate care, but utilizing reflective approaches can also challenge students' existing perceptions to promote higher levels of understanding (Adamson & Dewar, 2015), potentially addressing the theory-practice gap. A grounded theory study that was rated strong for methodological quality (see Appendix C for more detailed information on quality scores), also recommends that nursing educational programs promote reflective approaches that facilitate students' assessment of their situational stress (Shipton, 2002). This type of reflective practice may help both personal and professional development in nursing students (Shipton, 2002), and it may enable reflection of their situational transition (Schumacher & Meleis, 1994) as they expand in their professional role. It is therefore important for educational institutions to support nursing faculty and preceptors in the use of purposeful reflective learning strategies in order to provide beneficial learning opportunities that also promote the development of autonomous practitioners.

#### **Strategies for Reflection**

There are several strategies for self-reflection identified in the literature (Adamson & Dewar, 2015; Epp, 2008; Ruth-Sahd, 2011; Walker et al., 2013), which can assist nursing students to develop necessary coping skills, competence to engage in therapeutic and compassionate patient relationships, and the ability to learn from their practice experience (Adamson & Dewar, 2015; Epp, 2008). Reflective journals are a commonly employed method to promote critical self-reflection within nursing students and reasonable levels of reflection are often found using this approach (Epp, 2008). There is also evidence to suggest that students' level of reflection can improve over time when using journaling as a reflective strategy (Epp, 2008).

In addition, learning circles are a strategy being used to promote verbal reflection from both students and nursing staff in a more interactive manner. A qualitative study conducted by Walker et al. (2013), rated moderate for methodological quality, used research focus groups to explore the adaptation of staff and students to a learning circle strategy for facilitating open dialogue and critically reflecting on practice experiences. The learning circle strategy is a method that involves group discussions that allow participants to critically reflect on practices in a way that promotes

growth and change (Walker et al., 2013). The researchers found that not only did students find the learning circle environment to be one that was safe, encouraging, and empowering, but that nursing staff echoed the same positive response (Walker et al., 2013). Similar initiatives should ensure that students and staff are given equal opportunities to voice concerns and reflect on their clinical practice in a collaborative environment.

Peer sharing can also be a valuable and critical component of reflection for students in clinical practice settings. The use of cooperative nursing student partnerships—or dyads—was explored by Ruth-Sahd (2011) in a qualitative study rated strong for methodological quality that identified five themes related to this process: sharing clinical experiences with the dyad partner; improved transition to practice from the classroom; enhanced socialization into the profession and the notion of teamwork; increased autonomy, accountability, and responsibility; and building self-confidence. Although these dyads were only implemented for the first clinical day, they demonstrated the potential advantages of nursing student sharing as a means of strengthening confidence and clinical reasoning, while also helping students feel safe and supported (Ruth-Sahd, 2011).

#### **Use of Technology to Support Self-Reflection**

In recent years, evidence has supported the integration of technology into clinical practice settings as another strategy for increasing student sharing and reflection (Mackay & Harding, 2009; Wu & Lai, 2009). Communicating via text messages (Mackay & Harding, 2009), listening to health-care stories via podcasts to generate reflection (Adamson & Dewar, 2015), and student sharing in an online forum (Wu & Lai, 2009) have all been used as innovative strategies to promote discussion, reflection, and increased access to instructors. Specifically, a pilot study by Wu & Lai (2009), which was rated moderate for methodological quality, utilized personal digital assistants (PDAs) to allow students instant access to reflective journaling in an online forum. This allowed for an immediate response from their instructor, who could provide support or feedback, as necessary. More commonly in today's health-care environments, PDAs are being replaced by tablets and mobile devices, such as Smartphones, that can facilitate similar online journaling. It is worth noting that proper training for both instructors and students is necessary when integrating new technology into practice education (Wu & Lai, 2009). Furthermore, ensuring that connectivity issues are addressed (i.e., a service agency's access to Wi-Fi, Skype, or mobile networks) must also be taken into consideration (Wu & Lai, 2009).

#### Other Considerations

Nursing educational programs should ensure that adequate time, resources, and opportunities (e.g., adequate time for reflective journaling; a quiet, private and safe space for discussion; and secure and confidential online forums) are in place to allow nursing students to share and reflect safely on practice education experiences (Walker et al., 2013). Confidentiality and privacy should also be assured in practice education settings (e.g. a private space for discussion or written confidentiality agreements) when mutual reflective sharing occurs with nursing preceptors, staff nurses, and other students.

#### **RECOMMENDATION 1.2:**

Incorporate student placements that promote the transferability of skills and knowledge across the spectrum of care, including, but not limited to, the use of acute settings, community settings, and service-learning.

Level of Evidence = III

#### Discussion of Evidence:

While it is important to recognize that practice education opportunities are often limited, if the student's perspective of the experience is to be positive and viewed as enhancing their professional growth, variety in the placement options available to foster transferability of skills must be considered (Larson, Ott, & Miles, 2010; Reising et al., 2008; Warner, Jelinek, & Davidson, 2010). Further options in practice education settings—such as international (Wros & Archer, 2010) and community placements (Aponte, 2009), or those that incorporate service-learning<sup>G</sup> (Krumwiede, Van Gelderen, & Krumwiede, 2015; Reising et al., 2008)—should also be considered as a means for students to understand how social determinants of health can influence populations across various health-care systems. Practice education experiences that occur in practice settings outside of traditional hospital settings have been shown to complement existing clinical skills and competence learned in acute care, contribute to successful transferability of nursing skills into other areas, and provide a beneficial service to the communities or organizations involved (Merritt & Boogaerts, 2014; Mthembu & Mtshali, 2013; Reising et al., 2008). As a result, a range of practice education experiences in acute care, community care, and service-learning should be integrated where and when possible.

#### **Community and Service-Learning Practice Education Experiences**

Traditional acute care clinical placements most often occur in hospitals or long-term care facilities and provide nursing students opportunities to develop foundational nursing skills and competencies. In contrast, community placements and service-learning can occur in a variety of settings where nurses are employed and have their own unique advantages (Krumwiede at al., 2015; Merritt & Boogaerts, 2014; Reising et al., 2008). Community placements can encompass many settings, including public health, primary care clinics, rural community health centers, home care agencies (Merritt & Boogaerts, 2014), as well as population health promotion programs occurring within the community (Reising et al., 2008). Practice education experiences that occur in community placements can enhance skills and knowledge gained in acute care (Merritt & Boogaerts, 2014) and also incorporate a health promotion approach into practice (Reising et al., 2008). For example, in a qualitative study rated moderate for methodological quality, nursing students who had experienced a community placement not only gained implicit knowledge—such as recognizing and understanding the importance of the autonomous, collaborative, and person-centered practices of community nurses—but that they also expressed their ability to transfer this knowledge into other practice settings (Merritt & Boogaerts, 2014).

Furthermore, service-learning is a specific approach that is often used in community placements that addresses a need identified by the community, that is also aligned with student learning objectives, and allows students time to reflect on this experience following their provision of service (Krumwiede et al., 2015; Linton & Campbell, 2000, as cited in Reising et al., 2008). The benefits to a service-learning approach were demonstrated in a qualitative study by Mthembu and Mtshali (2013), rated strong for methodological quality, that explored knowledge construction within community programs. Nurse educators agreed that collaborating with community members in a service-learning program increased students' awareness of diverse beliefs, cultures, religions, and backgrounds in their practice, and that these experiences were an important component of knowledge construction (Mthembu & Mtshali, 2013).

#### Implementation of Service-Learning and Community-Based Practice Placements

When using service-learning and community-based practice placements, it is important not only for nursing programs to achieve agency approval and support from the community (Baglin & Rugg, 2010), but it is also important to ensure that these placements offer opportunities for nursing students to meet entry-to-practice competencies in some capacity (Pijl-Zieber, Barton, Awosoga, & Konkin, 2015). Educational institutions should work with community agency partners to ensure that there are clear understandings of how students will be engaged in opportunities to develop nursing competencies in order to prevent the potential for theory-practice gaps (Pijl-Zieber et al., 2015). In a qualitative study rated strong for methodological quality, Baglin and Rugg (2010) reported factors that must be addressed by educational institutions and service agencies to prevent negative experiences or interruptions to learning during community placements:

- assess the quality and appropriateness of community-based nursing practice placements related to the nursing role and the availability of nursing preceptors;
- ensure that all nursing students receive community-based practice placement experiences;
- understand potential influences on, and changes in, nursing students' confidence to practise throughout their education; and
- recognize ways that nursing preceptors adapt their practice to present positive experiences to nursing students and how student roles may differ from a more traditional clinical practice education setting (Baglin & Rugg, 2010).

#### 2.0 PRECEPTORS

#### **RECOMMENDATION 2.1:**

Provide nursing preceptors with a structured, participatory professional development and education program, implemented in collaboration with the service agency, that includes

- information about teaching strategies and theory;
- information about addressing students' clinical goals, objectives, scope of practice; and unsafe practice;
- specific guidance on implementing a standardized approach to role modelling as a clinical teaching strategy; and
- the importance of an orientation meeting with the student for establishing trusting,
   continuous relationships and mutual expectations for the experience.

Level of Evidence = IV

#### Discussion of Evidence:

The preceptor role implemented by experienced nurses in clinical practice has played an integral role in the education of nursing students (Leners, Roehrs, & Piccone, 2006), and it is important in supporting both students and new nursing staff (Henderson, Fox, & Malko-Nyhan, 2006). Preceptorship<sup>G</sup> is a more formal process that differs from mentoring in practice settings. Mentoring, as defined by the Canadian Nurses Association (2004), involves a professional relationship that is often long-term, mutually beneficial, and is between a nurse with more experience and a nurse or nursing student with less experience (p.18). Staff nurses may provide mentoring to students completing a practice education experience, new graduate nurses, or even colleagues who are interested in leadership roles (Canadian Nurses Association, 2004). In contrast, preceptors provide clinical supervision<sup>G</sup> and have a responsibility to provide clinical teaching, instruction, and formal evaluation (College of Nurses of Ontario [CNO], 2009).

To ensure that preceptors are successful in enhancing nursing practice education and providing students with a positive and mutually beneficial learning experience, designated nurse preceptors must receive adequate professional development and educational support (Daniellsson, Sundin-Andersson, Hov, & Athlin, 2009; McVeigh, Ford, O'Donnell, Rushby, & Squance, 2009), which focuses on helping them understand the impact of role modelling<sup>G</sup> (Donaldson & Carter, 2005). They also must understand the critical need to establish a trusting relationship and become fully oriented with the student, their roles, and their objectives (Haitana & Bland, 2011). Educational institutions should collaborate with service agencies to provide preceptors with the required information and education (Browning & Pront, 2015; Daniellsson et al., 2009; McVeigh et al., 2009) in a way that encourages them to participate in the process (Schaubhut & Gentry, 2010), provides a consistent approach to role modelling as a teaching strategy (Donaldson & Carter, 2005), and reinforces the importance of allocated time to establish supportive and trusting relationships with students (Henderson et al., 2006).

#### **Professional Development for Preceptors**

Preceptorship education programs have been reported not only to educate nurses, but also to provide preceptors with the opportunity to enhance their leadership skills and improve their quality of work life (Canadian Nurses Association, 2004). Educational workshops and programs with a focus on educating preceptors may include content on clinical teaching strategies, adult learning theories, and evaluating students in the clinical setting (Browning & Pront, 2015; Schaubhut & Gentry, 2010) and are an important element to ensuring preceptors have the competence and confidence necessary to support students in practice. Approaches to professional development and education should also incorporate ways to keep preceptors informed of ongoing changes in the theoretical components of nursing education so that they are best prepared to facilitate the practical components that compliment this learning (Bos, Lofmark, & Tornkvist, 2009). Effectively structured professional development and educational activities for preceptors include providing update sessions, resource and education packages, newsletters, and interactive workshops (Bos et al., 2009; Browning & Pront, 2015; Levett-Jones et al., 2006; McVeigh et al., 2009; Middleton & Duffy, 2009; Sedgwick & Yonge, 2008, 2009).

In addition, it is important that preceptors have a comprehensive understanding of the overall goals of the clinical experience, the nursing students' learning objectives, and the clinical activities that are within the students' scope of practice and specific to their year of study (Levett-Jones et al., 2006). There must also be consideration of how preceptors can utilize strategies to address unsafe practice by students (Luhanga, Yonge, & Myrick, 2008). Although the literature is limited within this area, there are strategies that can be integrated into preceptor education that focus on addressing unsafe practice. These strategies include closely monitoring the student and communicating the potential problems, developing a plan of action to provide specific learning opportunities, and providing constructive feedback (Luhanga et al., 2008). Education programs in collaboration with service agencies should consider incorporating a participatory component—including case studies or interactive discussion—that assists preceptors with difficult concepts, such as instilling critical thinking in students (Schaubhut & Gentry, 2010) and addressing unsafe practice (Luhanga et al., 2008).

Appendix D also outlines the skills and characteristics identified in the literature that should be developed and reinforced by educational programs designed for preceptors.

#### **Role Modelling as a Clinical Teaching Strategy**

Another strategy that is critical to the clinical learning of nursing students—and which must be supported by preceptors—is role modelling (Donaldson & Carter, 2005). Role modelling follows the assumption that nursing skills are complex, and if nursing students are to successfully learn and demonstrate specific behaviour or skills, they must be presented with a role model during repeated occurrences in a practice education placement (Donaldson & Carter, 2005). The preceptor acting as a role model also has a responsibility to ensure that the skills and behaviours demonstrated to students are aligned with their provincial or national nursing body's standards (CNO, 2009).

A grounded theory study by Donaldson and Carter (2005), rated moderate for methodological quality, explored the perceptions of undergraduate and diploma nursing students about role modelling in practice education. Students expressed their need to be informed of what to assess when observing role modelling, to receive repeated opportunities to observe and practice the modelled skill or behaviour, to receive timely feedback on their own performance replication, and to see inconsistencies in role modelling addressed (Donaldson & Carter, 2005). This could be achieved consistently if a theoretical model or standardized strategy of role modelling is implemented by preceptors. Nursing programs should work with preceptors and service agencies to explore how to implement this practice for students using a standardized approach or theoretical model that also allows for adequate feedback opportunities (Donaldson & Carter, 2005).

#### Importance of Orientation and Establishing Supportive Relationships

Establishing a professional working relationship is an important factor in preceptorship, and it results in a better assessment of students while also promoting their knowledge and understanding (Haitana & Bland, 2011). Specifically, more effective learning takes place when students are assigned to the same preceptors as consistently as possible; when that is not possible, it is recommended that an appropriate alternative preceptor be provided for the student (Henderson et al., 2006) in order to maximize continuity of the experience (Higgins & McCarthy, 2005). An interpretive qualitative study by Gillespie (2002), rated strong for methodological quality, found that nursing students felt knowledge of their learning needs, goals, strengths, and limitations enabled preceptors to provide appropriate support in the learning process, and prevented the preceptor from forming and acting on assumptions that could be perceived as disrespectful and contrary to their learning needs (Gillespie, 2002). As a result, these learning needs, goals, and strengths should be discussed early in the practice experience, such as during an orientation session between the student and preceptor.

Furthermore, a qualitative study using focus groups by Henderson et al. (2006), rated moderate for methodological quality, found that nurses who attended a preceptorship workshop considered it beneficial to provide time for preceptors and students to debrief, reflect, and complete education-oriented activities. Insufficient time spent with students has been reported to negatively impact the effectiveness of the preceptor role (Kaviani & Stillwell, 2000) and the ability to develop preceptorship relationships. As such, educational institutions should collaborate with service agencies to establish clear expectations regarding the importance of adequate time for orientation between preceptors and students. This will support a clear understanding of student needs and goals (Gillespie, 2002), as well as the mutual expectations for the experience.

#### **RECOMMENDATION 2.2:**

Facilitate collaboration—in partnership with service agencies—among preceptors, students, and nursing faculty members through frequent and clearly established communication strategies that are tailored to the practice education context.

Level of Evidence = IV

#### Discussion of Evidence:

Effective nursing preceptorship is often identified as contributing to how nursing students integrate and transition into practice in the workplace (Henderson et al., 2006), and it can lead to beneficial and impactful learning experiences for students. While the undergraduate nursing student is often partnered with a nursing preceptor, the responsibility for the clinical experience includes the involvement and collaboration of multiple support systems for both the learner and the preceptor. These include the educational institution that supports and arranges clinical placements, and the service agency that helps to support communication and facilitate ongoing learning experiences for both the preceptor and learner. In particular, agency support and collaboration—along with support from faculty—are key factors in the success of clinical placement experiences with preceptors (Jerlock, Falk, & Severinsson, 2003; McVeigh et al., 2009). For that reason, educational institutions, faculty members, preceptors, and nursing staff need to work together to provide a safe and supportive learning environment to ensure students can successfully advance in their nursing education (Baxter & Rideout, 2006).

#### **Collaboration between Educational Institutions and Preceptors**

A qualitative study conducted by Peters, Halcomb, & McInnes (2013), rated moderate for methodological quality, found that although registered nurses were willing to preceptor undergraduate nursing students, they often felt that there was a lack of communication between universities and clinical placements. This, in turn, could make support for preceptors difficult. As a result, the nurses preferred increased consultation and communication with the educational institutions, as it made them feel supported in their roles (Peters et al., 2013).

Several qualitative studies also found that preceptors in rural hospitals require unique support (Sedgwick & Yonge, 2008, 2009), as do those in community settings (Middleton & Duffy, 2009). For example, preceptors working in rural hospitals may work on smaller and more tight-knit units, where they must be cognizant of how they can negotiate learning activities with students and staff and how they can balance student needs with those of the unit (Sedgwick & Yonge, 2008). Longer distances between the educational institutions and the rural placements also may mean communication with nursing faculty is even more critical to combating feelings of isolation among students and preceptors (Sedgwick & Yonge, 2009). Similarly, preceptors in community settings, who were interviewed by Middleton and Duffy (2009) in a qualitative study that was rated strong for methodological quality, indicated that they needed more support from educational institutions to confidently assess students and determine "mini-caseloads" that were appropriate to nursing students' skills and abilities.

Nursing educational programs must be aware of providing ongoing support to preceptors and students that is tailored to the practice education context. Strategies for ongoing support identified in the literature include frequent site visits, teleconferences, or email updates (Peters et al., 2013), as well as education on evaluating student progress (Middleton & Duffy, 2010) and opportunities for both student and preceptor feedback on the practice education experience (Congdon, Baker, & Cheesman, 2013). The creation of unique management roles or specific departments within service agencies also has been used as a means to facilitate communication between educational institutions and preceptors (Congdon et al., 2013). Educational institutions can collaborate with these support personnel or departments to ensure that preceptor workloads are manageable and that the support personnel act as liaisons between the school and the preceptor (Congdon et al., 2013; Peters et al., 2013).

#### 3.0 FACULTY

#### **RECOMMENDATION 3.1:**

Prepare nurse educators engaged in practice education with the knowledge and skills that contribute to a positive, high quality learning environment, including

- pedagogy to facilitate practice education learning; and
- assessment strategies and evaluation of learning outcomes.

Level of Evidence = IV

#### Discussion of Evidence:

Faculty members' knowledge and skill related to the utilization of evidence-based practice allows them to support and prepare students for the integration of classroom theory into clinical practice experiences (Balakas, Potter, Pratt, Rea, & Williams, 2009; Balakas & Sparks, 2010). Their knowledge and understanding of diversity and cultural competence—as well as role modelling related to respectful interaction, value-sensitive communication, and sensitivity to the abilities, needs, and perspectives of others—are important in supporting the development of positive clinical experiences (Anonson, Desjarlis, Nixon, Whiteman, & Bird, 2008; Beukes, Nolte, & Arries, 2010; Billings, 2008; Cohen & Gregory, 2009). Educators also influence the climate of learning, and they can enhance or hinder learning depending on the climate they set (Rowbothan, 2010). Therefore, the preparation of successful nursing educators engaged in practice education teaching requires a combination of education, experience, knowledge (Beitz & Weiland, 2005), and assessment skills (Betany & Yarwood, 2010) that must be supported through allocated time for initial and ongoing professional development.

#### **Education Pedagogy to Facilitate Practice Education Learning**

Quality practice education in nursing requires an approach that facilitates student learning while also sustaining a supportive environment (Rowbothan, 2010). A comparative descriptive study by Beitz and Weiland (2005), rated strong for methodological quality, used analysis of open-ended questions to identify that nursing students valued nursing faculty who facilitated learning and made practice teaching enjoyable and interesting. Negative aspects of educators' teaching ability highlighted by students were "being by the book" and a failure to emphasize critical thinking skills in their learning (Beitz & Weiland, 2005). In contrast, students felt that nursing competencies among faculty that facilitated learning were positive role modelling, currency in practice, confidence building, and the timely provision of effective feedback (Beitz & Weiland, 2005).

In order to provide high-quality practice education experiences, nurse educators must be prepared to consider new approaches to deliver content and promote analytical thinking in nursing education. This requires moving beyond a uniform behavioural pedagogy<sup>G</sup> (Diekelmann, 1993, as cited in Cox, 1998), which typically asserts that effective teaching can be demonstrated through observed learned behaviour. Nursing faculty designated as practice education teachers need to be prepared for the use of learning technologies, such as simulation<sup>G</sup> (see recommendation 4.1), and active learning strategies in order to be current in applying new approaches to teaching and learning (Abbott & Coenen, 2008; Barry, Blum, Eggenberger, Palmer-Hickman, & Mosley, 2009). Promoting an environment of open communication, support, and ongoing dialogue between nursing educators may assist in knowledge sharing and integrating effective practice education pedagogies across programs in new and creative ways (Rosetti & Fox, 2009).

#### **Evaluation of Learning Outcomes and Assessment Strategies**

Faculty are required to know (a) how to design and use effective assessment approaches, (b) how they control what is learned, (c) how the process can be adapted to ensure equity for nursing students, and (d) how patient and professional safety is accounted for in practice (Betany & Yarwood, 2010). Hesitancy among nurse educators to assign a failing grade has been attributed to a lack of documentation, fear of litigation with appeals, and lack of confidence in the evaluation decision to "fail" (Boley & Whitney, 2003; Dudek, Marks, & Regehr, 2005; Scanlan & Care, 2004). Evaluation processes in nursing programs need to be reviewed and revised as necessary according to the outcome of the evaluation, as this will ensure that the methods used are relevant and related to competencies for entry into nursing practice (Chavez, Bender, Hardie, & Gastaldo, 2010).

Ideally, clinical assessment should require students to "demonstrate their competence to think, decide and act in the real clinical world" (Tiwari et al., 2005, p. 305). This form of assessment, known as "authentic assessment" (Wiggins, 1989, and Torrance, 1994, as cited in Tiwari et al., 2005) is a more appropriate way to test competence of professionals. It may take the form of a demonstration of skills and knowledge in real-life situations, an analysis of a critical incident, or a reflection on actual practice. This type of assessment reinforces the intent of the curriculum, which is to develop a variation of basic and advanced clinical skills, connect theoretical knowledge and patient care in a clinical context, and integrate the norms and values of the nursing profession (Tiwari et al., 2005).

Feedback during assessment is also important for students' professional advancement and development. A qualitative study by Kelly (2007), rated moderate for methodological quality, had findings to suggest that nursing students valued private, timely feedback within a clinical practice setting. Additionally, Glover's (2000) case study using quantitative and qualitative data, rated moderate for methodological quality, highlighted the relevance of feedback for third-year nursing students situated in acute care in Australia. Key factors influencing impact of feedback were its immediacy, basis in behavior, focus on the student, balance of positive and negative feedback, and intent to improve the student's practice —all of which are areas that should be considered when educational institutions are guiding faculty in assessment criteria (Glover, 2000). See **Appendix E** for suggested strategies that can be used by nursing educators, preceptors, and clinical nursing instructors to provide clinical feedback to nursing students following a practice education experience.

#### **RECOMMENDATION 3.2:**

Ensure that clinical nursing instructors possess current theoretical knowledge and clinical expertise and support ongoing professional development opportunities to promote the transfer of theory to practice.

Level of Evidence = IV

#### Discussion of Evidence:

Clinical supervision can influence students' professional and personal development, preparedness for career planning, views of the nursing profession, and motivation for continued learning throughout their careers (Haggman-Laitila, Elina, Riitta, Kirsi, & Leena, 2007). Clinical nursing instructors who provide support to students during clinical placements need to be adequately prepared and supported in their role so that they can provide quality supervision (Browning & Pront, 2015; Drennan, 2002; Higgins & McCarthy, 2005) and feel confident and competent (Cheraghi, Salasi, & Ahmadi, 2007). Specifically, clinical

nursing instructors must be knowledgeable both theoretically and clinically, and they need to have recent practice experience within a practice setting (Cheraghi et al., 2007). Clinical nursing instructors who are knowledgeable in these areas may also have an awareness of their organization's culture and policies and can empower learners to understand how these elements influence patient care. Therefore, educational institutions should support ongoing educational development opportunities in clinical practice and ensure that new clinical nursing instructors have diverse clinical experience related to the content they are teaching (Cheraghi et al., 2007).

#### **Adequate Clinical Experience**

Perceived gaps in recent practice experience and theoretical knowledge possessed by clinical nursing instructors can be an influential element that inhibits the transfer of classroom theory into clinical practice (Cheraghi et al., 2007). This was reported by researchers who conducted a grounded theory study, rated strong for methodological quality, which examined the transfer of theory to practice during practice education experiences. The majority of nurses and nursing students interviewed in this study emphasized that the skills they were taught in an academic setting did not closely resemble what was emphasized within a clinical practice setting (Cheraghi et al., 2007), which may be a reflection of inadequate continued professional development among instructors. At times, students and their clinical instructors felt that they followed existing routines taking place at the service agency, which may have further widened the theoretical practice gap by inhibiting the transfer of new practices into this setting (Cheraghi et al., 2007). Participants also felt that important characteristics of clinical instructors included having a specialty in a specific clinical field, as well as current and ongoing extensive clinical practice experience (Cheraghi et al., 2007).

Educational institutions therefore should be cognizant of both the extent of the clinical experience and education among instructors and whether or not it is current. This experience must be supplemented with ongoing professional development opportunities, either through the practice setting or an educational institution, in order to promote the continued transfer of theory to practice. Opportunities for continued development include the clinical instructor certificate course from the Canadian Association of Schools of Nursing (CASN), which provides education to registered nurses who are interested in continuing education in topics related to clinical education at the baccalaureate level (CASN, 2016). This course includes structured evaluation processes to ensure competence is externally validated (CASN, 2016). Similar courses are offered at academic intuitions and frequently in online formats. Initiatives comparable to these should be supported by educational institutions as a means of promoting continued education among faculty engaged as clinical nursing instructors in ways that are evaluated and validated.

#### 4.0 CURRICULUM

#### **RECOMMENDATION 4.1:**

Incorporate high-quality simulated learning experiences in the curriculum to complement practice education, taking into account the following:

- simulation is not a replacement for practice education;
- simulation experiences require faculty proficient in simulation teaching;
- opportunities for structured debriefing following simulation learning strengthen the experience; and
- quality simulation experiences require adequate time, preplanning, and attention to group size.

Level of Evidence = Ib-V

#### Discussion of Evidence:

High quality, digital simulation learning has been reported to provide learning outcomes that are similar to those of traditional face-to-face teaching methods in some situations, as demonstrated by Bloomfield, Roberts, & While (2010) in a randomized controlled trial. Simulation as preparation for nursing practice increases knowledge retention, skill acquisition, student satisfaction, critical thinking, self-confidence, and problem-solving abilities (Childs & Supplest, 2006; Jeffries, 2006; Wagner, Bear, & Sander, 2009). Use of simulated learning reduces the pressure on clinical environments for teaching/learning, and it provides faculty with the opportunity to assess student progress or competency related to clinical skills and nursing interventions in a controlled environment (NLN, 2014). Simulation experiences within clinical skills laboratories<sup>G</sup> can also ease student uncertainty related to nursing practice, and increase student self-confidence when they enter a clinical environment (Reilly & Spratt, 2007). Furthermore, adequate preparation in fundamental clinical skills prior to entering a practice setting is an essential element for providing holistic care (Chesser-Smyth, 2005). Simulation, therefore, should be integrated into nursing education as a complement to practice education experiences in clinical settings (Bloomfield et al., 2010; NLN, 2014).

#### **Simulation as a Strategy for Practice Education**

Simulation is not a replacement strategy for practice education. Rather, it provides a resource to augment the practice experience by preparing the students for practice; it also provides a mechanism for remediation of specific skills or tasks. The value of clinical experience and the development of practical skills should remain the focus of clinical learning (Grealish & Trevitt, 2005). In addition, quasi-experimental (Smith & Barry, 2013a) and descriptive correlational (Smith & Barry, 2013b) studies have also tested nursing students' knowledge prior to and upon completion of a home care simulation experience. Both of these studies, rated moderate for methodological quality, found that while there were no significant changes in knowledge scores between groups following the experience, there was an increase in students' self-reported confidence scores (Smith & Barry, 2013a, 2013b). Although these two studies used similar models of simulation, there are various models and methods for delivering these experiences. Further research should compare

various simulations with practice education experiences to reveal gaps in simulation learning or how the two approaches to clinical application could complement each other in education.

To assist in this area, the Canadian Association of Schools of Nursing (CASN) (2015) released a companion document for their National Nursing Education Framework entitled *Guidelines for Clinical Placements and Simulation* which provides key characteristics and differences between clinical placement experiences and simulation experiences. These Guidelines can be accessed through the CASN website at <a href="http://casn.ca/wp-content/uploads/2015/11/Draft-clinical-sim-2015.pdf">http://casn.ca/wp-content/uploads/2015/11/Draft-clinical-sim-2015.pdf</a> and provide more detailed information on types of simulation learning and guidelines for this approach (CASN, 2015). Simulation experiences should also be developed in accordance with a theoretical model or framework to ensure that the simulation follows a consistent and comprehensive format that accounts for multiple factors in student learning. See <a href="https://casn.ca/wp-content/uploads/2015/11/Draft-clinical-sim-2015.pdf">https://casn.ca/wp-content/uploads/2015/11/Draft-clinical-sim-2015.pdf</a> and guidelines for this approach (CASN, 2015). Simulation experiences should also be developed in accordance with a theoretical model or framework to ensure that the simulation follows a consistent and comprehensive format that accounts for multiple factors in student learning. See <a href="https://casn.ca/wp-content/uploads/2015/11/Draft-clinical-sim-2015/1

#### **Availability of Faculty Trained in Simulation Learning**

Simulation provides an environment for nursing educators to teach factual content related to practice and principles for safe and effective patient care within a standardized clinical environment (NLN, 2014). However, before incorporating simulation learning there are several factors to consider. It is important to ensure the availability of faculty experienced in the utilization of the pedagogy of simulation and staff who are appropriately trained to sustain the clinical skills centre or lab environment (Childs & Supplest, 2006; NLN, 2014). Opportunities for ongoing faculty development, as well as the use of simulation evidence-based research and best practices, must be considered. Resources to maintain a quality simulation environment also are required, including budgeting for tools such as mannequins, and faculty must be sufficiently trained in the use of such simulation tools, including through ongoing faculty educational development (Smith & Barry, 2013a).

#### **Opportunity for Debriefing following Simulation**

Guided reflection or debriefing is an important aspect of using simulation as a teaching/learning strategy (Jeffries, 2006; NLN, 2014). Structured opportunities for reflection following the simulation experience should be incorporated into the process in order to provide students with feedback regarding their decision making (NLN, 2014). This also provides time for students to reflect on their experience, emotions, and clinical competency. The role of faculty is that of a facilitator, and when planning the simulation, reflection after the experience should be given the same amount of time as the actual simulation (Jeffries, 2006). Debriefing also should be theory-based, and facilitators guiding this exercise should be regularly assessed on their competence in this approach (NLN, 2014).

#### **Necessary Time, Planning, and Group Size**

Development and implementation of quality simulation experiences requires time and planning. Faculty members need designated time for planning and development of comprehensive scenarios that reflect the realities of the clinical environment. The simulation experience itself should not be rushed, and students and faculty need adequate opportunity to move through the simulation. This includes appropriate preparation of the student for the experience and adequate time for debriefing after completion of the simulation (Childs & Supplest, 2006; NLN, 2014).

In terms of simulation group size as an aspect of planning, a descriptive post-test only study, rated moderate for methodological quality, found that learning outcomes were similar for nursing students whether or not they

participated in a simulation experience or merely observed it (Smith & Barry, 2013b). This finding may indicate that faculty can provide simulation experiences with larger groups of students or in larger classroom settings; even though some students may not participate directly, there can still be benefits for those observing the experience (Smith and Barry, 2013b). Nevertheless, other research supports smaller group sizes that promote tactile learning over observation for all students whenever resources and time allow (Childs & Supplest, 2006). Therefore, nursing programs and faculty should take multiple factors into account when deciding simulation group size, including the nature of the simulation, the resources required for the experience (such as the number of faculty, mannequins, or computers), and what approach will maximize the benefits for all students.

#### **RECOMMENDATION 4.2:**

Integrate innovative strategies into the curriculum that promote critical thinking in nursing students to prepare them for the transition to practice, including class discussions of key clinical issues or case studies, reflective writing, and the use of virtual health-care settings.

Level of Evidence = III

#### Discussion of Evidence:

Nursing as an applied discipline must be attentive to addressing the theory-practice continuum and how promotion of critical thinking can help to close the gap between the two fields. While some nursing educators promote task achievement, others emphasize critical thinking as the key to clinical decision-making in practice and implementation of the nursing process (Chow & Suen, 2001; Cope, Cuthbeartson, & Stoddart, 2000; Henderson, 2002). Critical thinking as a nursing concept is defined in a variety of ways throughout nursing literature, although the main components often include gathering and seeking information, questioning and investigating, analyzing and evaluating, and problem solving and applying theory (Chan, 2013). Critical thinking as a core component of practice decision-making must become the norm in practice education in order for nursing students to thrive within the ever-evolving health-care system and to successfully transition into practice. To do so, however, nursing curriculum must integrate and maximize opportunities for developing, fostering, and evaluating critical thinking skills of students within the classroom, as this will ensure that it is transferred into the clinical practice environment (Arreciado Maranon & Isla Pera, 2015; Henderson, 2002).

#### **Curriculum Design by Nursing Faculty**

In acknowledging the theory-practice gap, nursing programs must reflect on the integration of concepts in an applicable practice setting and focus on collaboration between what is taught in the classroom and what is demonstrated in practice (Arreciado Maranon & Isla Pera, 2015; Henderson, 2002). An ethnographic study, rated moderate for methodological quality, found that clinical placements are perceived by nursing students to have a pivotal role in the discovery of their professional identity and students often place greater importance on clinical placements compared with classroom theory in their professional role development (Arreciado Maranon & Isla Pera, 2015). However, both classroom theory and practice education experiences occurring within a clinical setting are important strategies for students' professional identity development and education (Arreciado Maranon & Isla Pera, 2015). Therefore, in order for both approaches to be meaningful and beneficial for nursing students, strategies for theory integration in the classroom must facilitate active and reflective learning that will promote and sustain critical thinking in practice settings as well

(Arreciado Maranon & Isla Pera, 2015; Henderson, 2002).

Although there remains a gap in research on how to consistently and effectively teach and evaluate critical thinking within nursing practice education, innovative strategies have been developed and appraised within the literature (Chan, 2013). The strategies more commonly used to promote critical thinking that can be transferred into practice include questioning methods to stimulate discussion, reflective writing using specific guidelines and questions, and solving clinical case-based studies (Chan, 2013). Another method of facilitating critical thinking in practice situations is through student participation in a virtual health-care environment, where students address problem-based vignettes as a means of practicing assessment skills, analysis, communication ability, and therapeutic nursing interventions (Ward & Killian, 2011). Dynamic discussion of key issues following participation in a virtual health environment can also be utilized for active learning of the material.

Integrating elements that promote critical thinking in the classroom can prepare students for the issues or problems that they may encounter when entering a practice setting, and they can influence student understanding of what is expected of them in their roles as nursing students. This level of planning and awareness of expectations can help alleviate the stress associated with students' situational transitions from classroom to practice setting (Schumacher & Meleis, 1994). Nursing programs should support faculty to incorporate diverse strategies into nursing curriculum that engage students in critically analyzing potential practice situations so that they are adequately prepared when they are in the clinical setting.



## **Recommendations for Service Agencies**

#### 5.0 SERVICE AGENCIES

#### **RECOMMENDATION 5.1:**

Engage in ongoing collaboration with educational institutions to develop strategies that promote a supportive learning environment for nursing students and encourage communication between service agency staff nurses and nursing faculty members.

Level of Evidence = IV

#### Discussion of Evidence:

Student learning experiences often are influenced by encounters with faculty, preceptors, other staff nurses, patients, and their families (Baxter & Rideout, 2006). As such, consideration must be given to the environment and the multiple factors that can impact the experience. There is evidence to support the importance of the clinical learning environment and how its atmosphere can affect the education of nursing students (CNO, 2009; Palmer et al., 2005). In particular, collaboration and communication between staff nurses at service agencies and nursing students are important, and a staff nurse who is genuinely interested in the quality of student education can provide an atmosphere of quality learning by forging a trusting, professional relationship (Registered Nurses' Association of Ontario [RNAO], 2006). Mutual respect and regard for others within a clinical environment has also been shown to have a positive impact on student self-esteem (Chesser-Smyth, 2005; RNAO, 2006), and being made to feel part of the team can reduce student anxiety and foster self-confidence. Service agencies should collaborate with nursing programs to support open communication with clinical staff regarding the details of student placement to ensure that staff nurses are prepared to welcome students to the unit, aware of their potential role in mentorship or guidance, and able to contact a faculty member as necessary (Levett-Jones et al., 2006; Palmer et al., 2005).

#### **Promoting a Supportive Learning Environment**

Nurses have a professional obligation to support the education and professional growth of learners and all nurses and students require an environment that is conducive and supportive to practice learning (CNO, 2009). However, barriers to collaboration between nursing staff and students can impede learning and influence the quality of practice education. In a mixed methods study conducted by Drennan (2002), rated moderate for methodological quality, it was found that clinical staff members were often too busy with patient care, lacked teaching and learning skills, and appeared to have little knowledge about the student's program and level of competence. It was noted that those providing clinical supervision in the practice setting need to collaborate with service agencies to ensure that all staff members are aware of the learning needs and skill level of students in order to enable safe, competent care (Drennan, 2002). Furthermore, service agencies can support staff nurses to engage in teaching relationships and ultimately create a supportive learning environment though a number of methods, including (a) working with clinical nursing instructors to encourage students to complete as much nursing care as possible each shift, (b) providing staff nurses

with information on the skill level of students, (c) encouraging and promoting student access to staff reports to help them feel welcomed and integrated within the health-care team, and (d) giving staff nurses sources of information or education on how to effectively mentor students (Palmer et al., 2005).

#### **Communication between Nursing Faculty and Nursing Staff**

There also must be collaboration and ongoing communication between the nursing staff at service agencies and academic nursing faculty. Using a quality improvement project, Levett-Jones et al. (2006) identified the importance of hospital staff being able to contact someone within the academic institution with questions or concerns related to the expectations of the clinical experience and the student's performance. Staff at the service agency expressed frustration and occasionally disillusionment when this type of support was not readily available (Levett-Jones et al., 2006). In a descriptive study rated moderate for methodological quality, Bos et al. (2009) found that a lack of education related to the their role, difficulty in keeping up-to-date with program changes, and a lack of support from the university were also identified as problematic for nursing staff. In order to facilitate successful and mutually beneficial learning opportunities for nursing students and staff, service agencies must collaborate with educational institutions to ensure communication strategies between faculty and staff are in place. These strategies must assure that nursing staff are able to regularly contact designated faculty members regarding student performance or concerns (Levett-Jones et al., 2006), and that information and clear expectations of their role is provided prior to commencement of the student placement (Palmer et al., 2005).

#### **RECOMMENDATION 5.2:**

Create mutually beneficial partnerships with academic nursing programs that foster quality practice education and support strategies to address gaps in services, including offering clinical instructor roles to nursing staff and increasing recruitment of new graduates.

Level of Evidence = Ia

#### Discussion of Evidence:

Promoting partnerships between academic nursing programs and service agencies can be mutually beneficial for each affiliation, and it also provides new educational practice opportunities for students (Connolly & Wilson, 2008; Murray, 2008). In recent years, new partnerships between academic programs and service agencies have fostered an increase in interprofessional and community-based practice modalities and the expansion of international opportunities for developing clinical competency (Baiardi, Brush, & Lapides, 2010; Delunas & Rooda, 2009; Huckabay, 2009; Kreulen, Bednarz, Wehrwein, & Davis, 2008). Academic–service partnerships<sup>G</sup>, as they are often called, can provide a solution to nursing faculty shortages while also giving experienced staff the opportunity to expand their mentorship and education experience (Connolly & Wilson, 2008; Murray, 2008). Service agencies and nursing programs should create cohesive partnerships that support and sustain strategies to address gaps in services that exist for both agencies (Connolly & Wilson, 2008).

#### **Strategies and Benefits for Creating Partnerships**

There are several examples within the literature of the creation of partnerships that specifically target ways to reduce nursing shortages academically. Connolly and Wilson (2008) reviewed the literature on academic–service partnerships, focusing on how academic nursing shortages could be addressed through partnerships with service agencies. Although this review's methods were largely absent from the publication, it did provide a detailed and comprehensive overview of academic–service partnerships worth mentioning. Connolly and Wilson found within the existing literature that offering nurse educator or clinical instructor roles to advanced practice nurses and experienced practitioners can help address shortages in academic faculties while also allowing staff to receive education in clinical mentorship. In exchange, the service agency can foster increased recruitment of new graduate nurses who have the opportunity to receive clinical learning experiences at the agency (Connolly & Wilson, 2008). The researchers also note that academic and service agencies can collaborate on research grants, which is mutually beneficial for both agencies (Connolly and Wilson, 2008). In order for this approach to be effective, the risks and returns for both agencies should be understood and discussed prior to forming partnerships, and staff acting as educators should receive the necessary education or training, as well as a release from their clinical duties (Murray, 2008).

Affiliate positions or joint appointments are other partnership strategies that can involve faculty members assuming clinical research or education positions, or staff nurses becoming educators with access to university resources (Budgen & Gamroth, 2008). Service agencies must collaborate with nursing programs to develop strategies to prevent burnout or work overload in staff who do assume clinical and educator roles, and practice education expectations must be clearly defined in order for students to benefit (Budgen & Gamroth, 2008). From the continued collaboration between service agencies and academic nursing programs, both organizations can clearly define their expectations and strategize how to best implement and evaluate this approach to education and the provision of care.

The ability to develop sustainable partnerships with various service agencies, including those that are community-focused (see recommendation 1.2 for the use of community placements), is also critical to ensuring adequate clinical placement opportunities for nursing students (Baiardi et al., 2010; Huckabay, 2009; Kreulen et al., 2008). Creative partnerships with agencies such as immigrant—refugee programs and international health-care organizations may result in the development and utilization of alternative practice settings (Callen & Lee, 2009). These settings provide students with cultural awareness experiences and knowledge of local health-care practices and beliefs, and they improve clients' access to care (Wros & Archer, 2010). Furthermore, opportunities that include disaster response related to shorter-term events (such as hurricanes) need to be facilitated to provide further benefit to both students and community service agencies (Richards, Novak, & Davis, 2009).

#### **RECOMMENDATION 5.3:**

Provide interprofessional learning experiences for nursing students that foster collaboration and mutual goal setting with other health disciplines in the process of care or program delivery.

Level of Evidence = Ia

#### Discussion of Evidence:

It is increasingly recognized that interprofessional teamwork is an essential characteristic of health-care reform (Kearney, 2008; Kydona, Malamis, Giasnetsova, Tsiora, & Gritsi-Gerogianni, 2010). Interprofessional education<sup>G</sup> is an attempt to shift the culture of educating from professional silos to one where health-care professionals are educated together in their undergraduate years (Dacey, Murphy, Anderson, & McCloskey, 2010; Herbert, 2005). The primary goal of interprofessional education is to develop students from different health-care professions who have the knowledge, skills, and attitudes to become collaborative team members (Oandasan & Reeves, 2005).

While it is recognized that it is necessary to have profession-specific competencies and knowledge, students need interprofessional interactions in order to learn how to become collaborative partners in caring for patients and their families (Kydona et al., 2010; Oandasan & Reeves, 2005; Pelling, Kalen, Hammar, & Wahlstrom, 2011; Priest et al., 2008; Warner et al., 2010). Service agencies should collaborate with academic institutions to promote interprofessional learning opportunities when and where possible (Oandasan & Reeves, 2005), and they should provide staff with information on the benefits of such an approach. This is supported by a systematic literature review by Oandasan and Reeves (2005). Although the methods of the Oandasan & Reeves review were largely absent, it is based on a more comprehensive chapter written for a Health Canada report on interprofessional education (Oandasan et al., 2004).

#### **Programs Integrating Interprofessional Learning**

Existing programs can provide context to academic institutions and service agencies on how interprofessonal education might be developed and implemented. Programs such as the Interprofessional Education Program developed by The Shiner's Hospitals for Children in Canada have been reported to enhance interprofessional practice (Takahashi, Brissette, & Thorstad, 2010), and they could be used as a guiding framework for other service agencies partnering with educational institutions. The Interprofessional Education Program, for example, involved students from nursing, physiotherapy, and occupational therapy participating in spina bifida clinic days, researching patient information, and developing care plans that address mutual goals (Takahasi et al., 2010). Informal qualitative feedback was collected from students after their involvement in the program, with participants reporting an increase in understanding of their roles and those of others. They also indicated that they had a more holistic view of patients and families, demonstrated their ability to work in teams, and showed their ability to create collaborative care plans (Takahasi et al., 2010). Community-based service-learning approaches are also being supported by service agencies and educational institutions as a way to integrate interprofessional learning experiences into community organizations (Dacey et al., 2010). Examples include integrating health promotion programs at assisted-living facilities that are created and delivered by an interprofessional team of students enrolled in nursing, health psychology, premedical, and pharmacy programs (Dacey et al., 2010).

Supporting interprofessional education can also help service agencies integrate more interprofessional practices within their organization, which can ultimately lead to greater efficiency and performance within units. This was demonstrated by Kydona et al. (2010), who explored interprofessional teamwork within the ICU in their crosssectional study, rated moderate for methodological quality. The researchers found that staff valued teamwork within their work setting and viewed it as important for effective professional performance (Kydona et al., 2010). Student reaction to interprofessional education tends to be more positive if a direct relevance between this approach and their future practice is apparent, and therefore many interprofessional education initiatives use approaches that are based in clinical practice (Oandsan & Reeves, 2005). Service agencies must be receptive to these initiatives and collaborate with academic nursing and health programs to ensure that interprofessional education is supported within their organization.



## System Level and Policy Recommendations

#### **6.0 SYSTEM LEVEL AND POLICY**

#### **RECOMMENDATION 6.1:**

Advocate for policies that enable sufficient funding for and access to qualified faculty, adequate clinical placements, and collaborative relationships with service partners to support quality practice education for nursing students.

**Level of Evidence = V** 

#### Discussion of Evidence:

Balancing educational goals and the responsibilities of students, faculty, and staff with the need of service agencies to provide high-quality care with an emphasis on patient safety is a significant challenge. In order for practice education in nursing to continue to advance in line with the increasing demands of a complex health-care system, the appropriate resources must be in place to support proficient clinical nursing instructors and educators, a variety of clinical and community placements, and collaborative relationships with clinical practice organizations (MacFarlane et al., 2007). Policy-makers, decision-makers, and key stakeholders should advocate for increased funding to support services that promote retention and recruitment of educators, as well as access to partnerships with clinical and community agencies (MacFarlane et al., 2007).

CASN (2003) established a task force and issued a survey to Canadian schools of nursing to examine the issues and barriers associated with the provision of practice education for nursing students. This report was summarized, with a focus on the survey results, by MacFarlane et al. (2007). The researchers identified a series of barriers or issues to providing clinical education experiences addressed by the CASN report:

- Quantity and quality of placements: the majority of schools that responded to the CASN survey reported challenges in providing adequate opportunities for appropriate practice placements (CASN, 2003; MacFarlane et al., 2007). Changes in hospital structures, decreased length of stay, the shift to community care, and other factors have resulted in smaller individual units and as a result, the number of students that can be accommodated on one unit has declined (CASN, 2003; MacFarlane et al., 2007). This means that faculty must cover more than one unit at a time, which affects their ability to provide appropriate supervision of students (CASN, 2003; MacFarlane et al., 2007).
- Funding for clinical education: approximately 50% of respondents identified lack of funding as a key issue (CASN, 2003; MacFarlane et al., 2007). The turnover of sessional clinical teachers and the costs associated with new hires and mentoring adds to the funding challenges, and the existing funding formulas do not adequately address the actual costs of practice education (CASN, 2003; MacFarlane et al., 2007). For example, community placements are more labour intensive to arrange and supervise than traditional acute care placements (CASN, 2003; MacFarlane et al., 2007). Overall, there are a number of linkages between the shortfall of funding and the supply of nurse educators (CASN, 2003; MacFarlane et al., 2007).
- Shortage of qualified teachers: increased health-care demands on staff, decreased numbers of nurses, lack of incentives for nurses to strengthen their formal education, fiscal challenges at universities, and practical challenges with short-term contract work have resulted in a shortage of nurse educators (CASN, 2003; MacFarlane et al., 2007). There also is retirement and salary competition in the service sector, which again results in recruitment challenges in the educational sector (CASN, 2003; MacFarlane et al., 2007).

Increasing competition for placements: service agencies are at capacity with respect to the expanding number of students and the various levels and categories of learners who require clinical practice placements (CASN, 2003; MacFarlane et al., 2007). The resulting competition for precious clinical placements highlights the need to develop new models and approaches to practice education (CASN, 2003; MacFarlane et al., 2007).

Having identified the challenges, MacFarlane et al. (2007) suggest that policy- and decision-makers should advocate for some key approaches to overcome these barriers. The Guideline expert panel also supported the key approaches proposed by the researchers:

- increasing the use of community placements;
- expanding clinical placement sites to not only urban city centers, but rural locations as well;
- scheduling flexible hours for practice placements (e.g., cover seven days a week, evening and night shifts, longer hours during the day, or consolidate experiences at times other than the April/May block);
- creating clinical placement coordinator positions as an established position within the practice setting to work with nursing and other professional programs to facilitate scheduling student placements; and
- enhancing relationships with practice partners in order to actively foster strong relationships between faculty, service agency contacts, and other clinical liaisons. This requires an investment of time and effort to ensure that communication links are maintained (MacFarlane et al., 2007).

#### **RECOMMENDATION 6.2:**

Prioritize programs of research that are designed and funded to advance understanding of the strategies that improve quality practice education in nursing and impact the science of nursing education.

Level of Evidence = V

#### Discussion of Evidence:

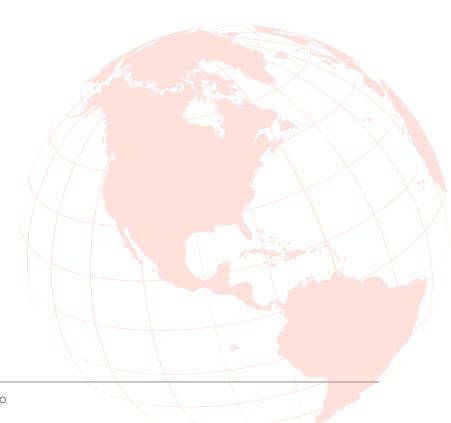
Although evidence-based research related to practice education is expanding, there continues to be a need for research that compares nursing educational models and examines learning, patient care outcomes, and related costs (Budgen & Gamroth, 2008). Aligned with this Guideline's recommendations, further research also is needed in regard to the impact of traditional versus simulation clinical experiences, the evaluation processes for this type of practice education, and the faculty-to-student ratios that best support simulated experiences, (Parker & Myrick, 2010); effective strategies to promote critical thinking (Chan, 2013); and the impact of interprofessional clinical education (Pelling et al., 2011). Policy-and decision-makers within government and institutions of higher education must support and prioritize research in nursing practice education and the science of nursing education (NLN, 2007). Support for pedagogical research in nursing can help to ensure that future nursing graduates are taught using the most current and evidence-based strategies, allowing the profession to continue to tackle the challenges of an evolving health-care system.

The National League for Nursing (NLN) Board of Governors (2007) addressed these issues in their position statement *The Need for Funding for Nursing Education Research*. The NLN believes that there is an urgent need to provide significant funds to support research that will build the science of nursing education. Such a science should address questions related to faculty preparation and development, new pedagogies that could be implemented in nursing education, graduate-level competencies for nursing education, best practices in teaching and learning, innovative clinical teaching models, recruitment and retention strategies, and other elements of quality nursing education (NLN, 2007). The NLN stresses, however, that nursing education science can only be expanded by research if specific components are in place. Expert scholars in nursing education who can design and conduct research in this sector, as well as the necessary government or institutional funding to undertake this research, are critical to advancing nursing education research (NLN, 2007). This type of research must be valued and supported by academic nursing programs and institutions, as well as by faculty members who incorporate evidence-based education research into teaching and practice (NLN, 2007).

The NLN (2007) also made several recommendations that support expanded research efforts in the science of nursing education. Some of these recommendations include the following:

- faculty should advocate with policy-makers, stakeholders, and the public about the need to fund research in nursing education;
- the federal government and other organizations, foundations, and supporters of research must reevaluate their initiatives to include support for pedagogical research in nursing; and
- faculty should establish robust programs of research to advance the science of nursing education (NLN, 2007).

They also recommend that schools of nursing and educational institutions provide resources to support pedagogical research and a culture that values and supports this avenue of research (NLN, 2007).



## Research Gaps and Future Implications

While reviewing the evidence for this Guideline, the RNAO guideline development team identified the priority areas for research set out in Table 2. They are broadly categorized into practice, outcome, and health-system research.

Table 2. Priority Practice, Outcome, and Health-System Research Areas

CATEGORY	PRIORITY RESEARCH AREA
Practice research	<ul> <li>Expanding the role of technology in practice education experiences, including its use in reflection and as an information resource.</li> </ul>
	<ul> <li>Using registered nurses as clinical preceptors and the potential advantages and disadvantages that can occur when members of other disciplines preceptor registered nursing students.</li> </ul>
	<ul> <li>Using effective assessment strategies for measuring clinical competence in nursing students.</li> </ul>
	<ul> <li>Using effective assessment and management strategies for addressing unsafe student practice during preceptorship and other practice education experiences.</li> </ul>
	<ul> <li>Comparing simulation learning opportunities for nursing students in order to clarify which approaches may be most effective.</li> </ul>
	More definitive definition of what encompasses critical thinking in nursing practice education.
Outcomes research	<ul> <li>Effectiveness of practice education strategies used to promote critical thinking for nursing students and the resulting outcomes.</li> </ul>
	<ul> <li>Outcomes of strategies to support communication between nursing staff and educational institutions to facilitate quality practice education.</li> </ul>
	<ul> <li>Feasibility of partnerships between service agencies and educational institutions to create joint appointments for clinical staff and educators.</li> </ul>
	Most effective strategies to integrate interprofessional education into nursing curriculum and the outcomes of these strategies.
Health-system research	<ul> <li>Service agency and educational institutional policies that promote partnerships and collaboration in the implementation of practice education opportunities and retention of nursing graduates.</li> </ul>
	■ Effective initiatives to support government funding for nursing practice education research.
	<ul> <li>Outcomes of educational institutions' implementation of robust faculty programs of research on the science of nursing education.</li> </ul>

Although Table 2 is not exhaustive, it is an attempt to identify and prioritize the research needed with respect to practice education in nursing. Many of the recommendations in this Guideline are based on quantitative and qualitative research evidence; further substantive research is required to validate some of these recommendations. Increasing the research evidence will lead to improved practices within nursing education.

## **Implementation Strategies**

Implementing guidelines at the point-of-care is multi-faceted and challenging; it takes more than awareness and distribution of guidelines to get people to change how they practise. Guidelines must be adapted for each practice setting in a systematic and participatory way to ensure recommendations fit the local context (Harrison, Graham, Fervers, & Hoek, 2013). The RNAO *Toolkit: Implementation of Best Practice Guidelines* (2012) (<a href="http://rnao.ca/sites/rnao-ca/files/RNAO Toolkit 2012 rev4 FA.pdf">http://rnao.ca/sites/rnao-ca/files/RNAO Toolkit 2012 rev4 FA.pdf</a>) provides an evidence-informed process for doing this, as seen on page 48.

The Toolkit is based on emerging evidence that successful uptake of best practices in health care is more likely when

- leaders at all levels are committed to supporting guideline implementation;
- guidelines are selected for implementation through a systematic, participatory process;
- stakeholders for whom the guidelines are relevant are identified and engaged in the implementation;
- environmental readiness for implementing guidelines is assessed;
- the guideline is tailored to the local context;
- barriers and facilitators to using the guideline are assessed and addressed;
- interventions to promote use of the guideline are selected;
- use of the guideline is systematically monitored and sustained;
- evaluation of the guideline's impact is embedded in the process; and
- adequate resources to complete all aspects of the implementation are available.

The *Toolkit* uses the Knowledge-to-Action framework (Straus, Tetroe, Graham, Zwarenstein, & Bhattacharyya, 2009) to demonstrate the process steps required for knowledge inquiry and synthesis. It also guides the adaptation of the new knowledge to the local context and implementation. The Knowledge-to-Action framework suggests identifying and using knowledge tools (such as guidelines) to identify gaps and begin the process of tailoring new knowledge to local settings.

RNAO is committed to widespread deployment and implementation of Best Practice Guidelines (BPG). We use a coordinated approach to dissemination, incorporating a variety of strategies, including

- 1. The Nursing Best Practice Champion Network®, which develops the capacity of individual nurses to foster awareness, engagement, and adoption of BPGs;
- 2. Nursing order sets, which provide clear, concise, and actionable intervention statements derived from the BPGs' practice recommendations that can be readily embedded within electronic medical records, but which also may be used in paper-based or hybrid environments; and
- 3. The Best Practice Spotlight Organization® (BPSO®) designation, which supports implementation at the organization and system levels. BPSOs® focus on developing evidence-based cultures with the specific mandate to implement, evaluate, and sustain multiple RNAO BPGs. In addition, we offer annual capacity-building learning institutes on specific BPGs and their implementation (RNAO, 2012).

Information about our implementation strategies can be found at

- RNAO Best Practice Champions Network\*: <a href="http://RNAO.ca/bpg/get-involved/champions">http://RNAO.ca/bpg/get-involved/champions</a>
- RNAO Nursing Order Sets: <a href="http://RNAO.ca/bpg/initiatives/nursing-order-sets">http://RNAO.ca/bpg/initiatives/nursing-order-sets</a>
- RNAO Best Practice Spotlight Organizations®: <a href="http://RNAO.ca/bpg/bpso">http://RNAO.ca/bpg/bpso</a>
- RNAO capacity-building learning institutes and other professional development opportunities: http://RNAO.ca/events



## Description of the Toolkit

Best practice guidelines can only be implemented successfully if planning, resources, and organizational and administrative supports are adequate and there is appropriate facilitation. To encourage successful implementation, an RNAO expert panel of nurses, researchers, and administrators has developed the *Toolkit: Implementation of Best Practice Guidelines* (2012). The *Toolkit* is based on available evidence, theoretical perspectives, and consensus<sup>G</sup>. We recommend the *Toolkit* for guiding the implementation of any clinical practice guideline in a health-care organization.

The *Toolkit* provides step-by-step directions for the individuals and groups involved in planning, coordinating, and facilitating implementation of this Guideline. These steps reflect a process that is dynamic and iterative rather than linear. Therefore, at each phase, preparation for the next phases and reflection on the previous phase is essential. Specifically, the *Toolkit* addresses the following key steps, as illustrated in the Knowledge-to-Action framework (Straus et al., 2009):

- 1. Identify the problem: identify, review, and select knowledge (best practice guideline);
- 2. Adapt knowledge to the local context: assess barriers and facilitators to knowledge use, and identify resources;
- 3. Select, tailor, and implement interventions;
- 4. Monitor knowledge use;
- 5. Evaluate outcomes; and
- 6. Sustain knowledge use.

Implementing guidelines to effect successful practice changes and positive clinical impact is a complex undertaking. The *Toolkit* is one key resource for managing this process. It can be downloaded from <a href="http://RNAO.ca/bpg/resources/toolkit-implementation-best-practice-guidelines-second-edition">http://RNAO.ca/bpg/resources/toolkit-implementation-best-practice-guidelines-second-edition</a>.

## **Evaluating and Monitoring This Guideline**

As you implement the recommendations in this Guideline, we ask you to consider how you will monitor and evaluate its implementation and impact.

Table 3 is based on a framework outlined in the RNAO's *Toolkit: Implementation of Best Practice Guidelines* (2012) and illustrates some specific indicators for monitoring and evaluating implementation of this Guideline.

Table 3. System/Organization Structure, Process, and Outcome Indicators for Monitoring and Evaluating This Guideline

TYPE OF INDICATOR				
System/organization structure	Process	Outcome		
These indicators refer to the supports and resources required for a health system, health-service organization, or academic institution to enable the successful implementation of the <i>Practice Education in Nursing</i> Guideline.	These indicators evaluate whether best practices directed at the education, training, and practice of health-care professionals have been implemented.	These indicators evaluate the impact of implementing the Guideline recommendations on health-care or academic organizations, health-care professionals and student outcomes.		
System-wide integration of policies and procedures consistent with Guideline recommendations for supporting practice education in nursing.  Academic institutions adopt and implement evidence-based policies and procedures that support practice education in nursing.  Availability of adequate financial resources to support and implement Guideline recommendations.  Availability of structured preceptor education programs within practice and academic settings.	Percentage of nursing faculty that participate in ongoing faculty development.  Percentage of nursing students who participate in clinical practice reflection activities.  Percentage of interprofessional and interdisciplinary courses offered for students.  Percentage of clinical preceptors who attend a structured preceptor education program.  Percentage of simulation practice opportunities offered for nursing students.	Nursing students report satisfaction with practice education and training received.  Nursing students report satisfaction with the range of options for clinical practice placements.  Nursing staff acting as preceptors report satisfaction in their role and support from educational institutions and service agencies.  Percentage of nursing students who pass entry-to-practice exams for licensure.		

TYPE OF INDICATOR (CONT.)				
System/organization structure	Process	Outcome		
Academic institutions implement placement selection processes that include a variety of clinical practice choices.  Academic institutions provide opportunities for the professional development of faculty members related to practice education in nursing.  Funding processes in place to support and implement preceptor programs and simulation labs.  Funding processes in place to support research in the science of nursing education.  Academic institutions establish curricula that incorporate the following elements:  variety in practice education experiences;  opportunities for sharing and reflecting on clinical experiences;  simulation labs; structured feedback; interprofessional learning experiences; and consistent contacts in academia for practice settings.	Percentage of practice education settings in nursing programs that are outside of hospital settings.  Percentage of faculty engaging in nursing education research within an educational institution.  Percentage of nursing students who receive structured feedback following practice education experiences.  Number of consistent preceptor programs offered to practice preceptors.	Retention of expert nurse practitioners who have acted as preceptors to students.  Retention of expert nursing faculty within academic institutions.  Retention of new graduate nursing students within service agencies.  Percentage of nursing students who pass practice education experiences.		

## Process for Update and Review of the Guideline

The Registered Nurses' Association of Ontario (RNAO) commits to updating its Best Practice Guidelines (BPG) as follows:

- 1. Each BPG will be reviewed by a team of specialists in the topic area every five years following publication of the previous edition.
- 2. RNAO International Affairs and Best Practice Guideline (IABPG) Centre staff regularly monitor for new systematic reviews, randomized controlled trials, and other relevant literature in the field.
- 3. Based on that monitoring, IABPG Centre staff may recommend an earlier revision period for a particular BPG. Appropriate consultation with members of the original expert panel and other specialists and experts in the field will help inform the decision to review and revise the BPG earlier than the targeted milestone.
- 4. Three months prior to the review milestone, IABPG Centre staff commence planning of the review by:
  - a) Inviting specialists in the field to participate on the expert panel. The panel will be composed of members from the original expert panel as well as other recommended specialists and experts.
  - b) Compiling feedback received and questions encountered during the implementation, including comments and experiences of BPSOs\* and other implementation sites regarding their experiences.
  - c) Compiling new clinical best practice guidelines in the field and conducting a systematic review of the evidence.
  - d) Developing a detailed work plan with target dates and deliverables for developing a new edition of the BPG.
- 5. New editions of BPGs will be disseminated based on established structures and processes.

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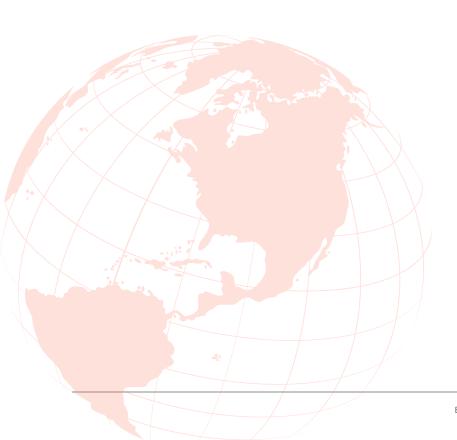
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## Appendix A: Glossary of Terms

academic-service partnership: A collaborative partnership between an academic educational institution and a service agency established in order to meet each agency's needs and negotiate ways to improve staffing shortages (Connolly & Wilson, 2008).

accreditation: The process of validating a nursing education program. CASN (2014) states that "in order to obtain accreditation, schools of nursing undergo a review of both the educational unit and the nursing education program. Each is assessed against a separate set of predetermined standards, and receives a separate accreditation decision" (p.4).

analytical studies: Analytical studies test hypotheses about exposure—outcome relationships. The investigators do not assign an intervention, exposure, or treatment but they do measure the association between exposure and outcome over time, using a comparison group (Centers for Disease Control and Prevention [CDC], 2013). Analytical study designs include case-control studies and cohort studies.

<u>case-control study:</u> A study that compares people with a specific disease or outcome of interest (cases) to people from the same population without that disease or outcome (controls) (The Cochrane Collaboration, 2005).

<u>cohort study</u>: An observational study in which a defined group of people (the cohort) is followed over time either prospectively or retrospectively (The Cochrane Collaboration, 2005).

best practice guidelines: Systematically developed statements to assist practitioner and client decisions about appropriate health care for specific clinical (practice) circumstances (Field & Lohr, 1990). Also called clinical practice guidelines.

**clinical competence:** Refers to the ability to deliver client-centered, safe, effective, and direct patient care (Gillespie & McFetridge, 2006).

**clinical nursing instructor:** The registered nurse responsible for providing professional development guidance and support during a clinical practice experience (Levy et al., 2009). The clinical nursing instructor may be employed by the academic institution or the service agency where the experience is occurring.

clinical placement coordinator: Educational institutions and service agencies employ clinical placement coordinators to arrange the placements for nursing students and work with nursing programs to modify scheduling of student practicums (MacFarlane et al., 2007).

clinical skills laboratories: Learning centres that are equipped with physical and virtual simulators at varying levels of fidelity, as well as real clinical equipment to "provide opportunities for experiential learning, self-directed learning, reflection on clinical practice, and structured assessment of learning" (Freeth & Fry, 2005, p. 273).

**clinical supervision:** The development of clinical learning within a practice setting between an experienced supervisor and a beginner or novice supervisee. "Supervision occurs in conjunction with working with patients and varies according to the supervisor, the workload of the unit and the atmosphere of the setting" (Haggman-Laitila et al., 2007, p. 382).

**consensus:** A process for making decisions, not a scientific method for creating new knowledge. Consensus development makes the best use of available information, be that scientific data or the collective wisdom of the participants (Black et al., 1999).

**controlled study:** A clinical trial in which the investigator assigns an intervention, exposure, or treatment to participants who are not randomly allocated to the experimental and comparison or control group (The Cochrane Collaboration, 2005).

descriptive studies: Studies that generate hypotheses and describe characteristics of a sample of individuals at one point in time. The investigators do not assign an intervention, exposure, or treatment to test a hypothesis, but merely describe the who, where, or when in relation to an outcome (CDC, 2013; The Cochrane Collaboration, 2005). Descriptive study designs include cross-sectional studies. A cross-sectional study measures the distribution of some characteristic(s) in a population at a particular point in time (also called a survey) (The Cochrane Collaboration, 2005).

evidence: Evidence is information that comes closest to the facts of a matter. The form it takes depends on context. The findings of high-quality, methodologically appropriate research provides the most accurate evidence. Research is often incomplete and sometimes contradictory or unavailable and other kinds of information are necessary supplements to, or stand-ins, for research. The evidence-base for a decision is the multiple forms of evidence combined to balance rigour with expedience while privileging the former over the latter (RNAO, 2014, p. 66).

**interprofessional education:** Professional education using a collaborative process between two or more health disciplines, with the aim of improving patient care (Oandasan & Reeves, 2005).

interprofessional health-care team: A team comprised of multiple health-care providers (regulated and unregulated) who work collaboratively to deliver comprehensive and quality health care and services to people within, between, and across health-care settings (Health Care Innovation Working Group, 2012; RNAO, 2013).

mentoring: The act of engaging in mentorship. Mentoring is less formal than precepting and involves a longer-term professional relationship between a novice nurse or nursing student and a more experienced nurse (Canadian Nurses Association, 2004).

meta-analysis: A systematic review of randomized controlled trials that uses statistical methods to analyze and summarize the results of the included studies (The Cochrane Collaboration, 2005).

**nurse:** Refers to registered nurses, licensed practical nurses (referred to as registered practical nurses in Ontario), registered psychiatric nurses, and nurses in advanced practice roles such as nurse practitioners and clinical nurse specialists (CNO, 2014; RNAO, 2013).

**nursing educator:** A member of a nursing program faculty who is employed by an educational institution to provide integrative teaching that can be transferred from a classroom to a clinical environment (CASN, 2011a, 2011b).

**nursing theory:** The subject matter of nursing, which is taught in the classroom and equips students for practice (Knight, Moule, & Desbottes, 2000).

**pedagogy:** The theory and methods related to the practice of teaching. Nursing pedagogies follow frameworks and theory that outline the curriculum and the relationship between teachers and learners (Ironside, 2003).

person: In this BPG, a person is any individual(s) with whom health-care providers establish a therapeutic relationship for the purposes of partnering for health. The term is inclusive of individuals, clients, patients, residents, consumers, and their families (parents, significant others, caregivers, friends, substitute decision-makers, groups, communities, and populations) (CNO, 2013a, 2013b; Mental Health Commission of Canada, 2009).

preceptor (preceptorship): A preceptor is often defined as an experienced nurse who provides individual guidance to a student. (Bourbonnais & Kerr, 2007). More specifically, preceptorship is considered a "frequently employed teaching and learning method using nurses as clinical role models. It is a formal, one-to-one relationship of pre-determined length, between an experienced nurse (preceptor) and a novice (student/ preceptee) designed to assist the novice in successfully adjusting to and performing a new role" (CNA, 2004, p.13).

**qualitative research:** Research that uses an interactive and subjective approach to investigate and describe phenomena (e.g., lived experience) and to give them meaning. The nature of this type of research is exploratory and open-ended. Analysis involves the organization and interpretation of non-numerical data (e.g., Phenomenology, Ethnography, Grounded Theory, Case Study, etc.) (Speziale & Carpenter, 2007).

**quality:** The degree to which health-care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (The World Alliance for Patient Safety Drafting Group, 2009).

**quasi-experimental study:** A study that lacks randomization and a control group and therefore is not considered a "true" experimental design (e.g., a randomized controlled trial). The investigator controls the assignment to the intervention, exposure, or treatment by using some criterion other than random assignment (e.g., pre-post design) (Polit, Beck, & Hungler, 2001).

randomized controlled trial (RCT): An experiment in which the investigator assigns an intervention, exposure, or treatment to participants who are randomly allocated to either the experimental group (receives intervention) and the comparison (conventional treatment) or control group (no intervention or placebo) (The Cochrane Collaboration, 2005). The participants are followed and assessed to determine the efficacy of the intervention. Includes double-blind, single-blind and non-blind trials.

**role modelling:** The process of an experienced nurse demonstrating skills and behaviours to beginner or novice nursing students. Role modelling is more than simply imitation of behavior; it requires repetition, reinforcement, and reward in the form of feedback (Donaldson & Carter, 2005).

service-learning: Service-learning is a community-based approach that addresses a need identified by the community, ensures that the need also meets student learning objectives, and allows students time to reflect on this experience following their provision of service (Linton & Campbell, 2000, as cited in Reising et al., 2008). A service-learning approach may take the form of a population health promotion program that nursing students plan and implement in collaboration with a community (Reising et al., 2008).

**simulation (simulation learning):** "Simulation is the imitation of some real thing, state of affairs or process. In health professions education, simulation is a methodology to help achieve educational goals. Healthcare simulation encompasses a range of activities that share a broad but common purpose: To improve the safety, effectiveness and efficiency of healthcare services." (SIM-One Ontario Simulation Network, 2015, p. 1). Simulation activities can include computer-based simulation, e-learning, high fidelity patient simulators, role playing, and other blended approaches.

**staff nurses:** Staff nurses are registered nurses employed by a service agency who are often involved in formally or informally mentoring students during their clinical practice education experiences (Drennan, 2002).

**stakeholder:** An individual, group, or organization with an interest or concern in something, such as a business or institution. Stakeholders may attempt to influence decisions and actions related to the object of their interest (Baker, Bankart, & Murtagh, 2009). Stakeholders include all individuals and groups who will be directly or indirectly affected by the change or solution to a problem.

**student:** A student, as used in this Guideline, is an individual enrolled in a baccalaureate nursing program from an accredited educational institution who is acquiring new clinical competencies in a practice setting (Canadian Nurses Association, 2004).

systematic review: A review that "attempts to collate all empirical evidence that fits pre-specified eligibility criteria in order to answer a specific research question" (The Cochrane Collaboration, 2011). A systematic review uses systematic, explicit, and reproducible methods to identify, select, and critically appraise relevant research, and to collect and analyze data from the studies that are included in the review (The Cochrane Collaboration, 2005, 2011).

theory-practice gap: The theory-practice gap is a commonly used term in nursing education, which refers to "the inability to relate and implement ideological knowledge gained in education to the realities of modern-day healthcare practice" (Clark & Holmes, 2007 as cited in Monaghan, 2015, p. e1).

## **Appendix B: Guideline Development Process**

The Registered Nurses' Association of Ontario (RNAO) has made a commitment to ensure that every best practice guideline (BPG) is based on the best available evidence. To meet this commitment, a monitoring and revision process occurs regularly for each guideline.

In May 2007, RNAO convened a panel of nurses from a range of nursing specialties, roles, and practice settings who had expertise in practice, research, policy, education, and administration.

The expert panel and the guideline development team undertook the following steps in developing this Guideline:

- The scope of the Guideline was identified and defined through a process of discussion and consensus.
- The panel identified key themes and concepts in practice education that directed the literature search and organized the Guideline.
- A comprehensive literature review was conducted in 2007 to inform recommendation development (See Appendix C).
- Through a process of discussion and consensus, preliminary recommendations were developed based on the evidence in the literature.
- Drafts of the Guideline were reviewed and revised by the expert panel and members of RNAO's guideline development team.
- Updated literature searches using consistent terms were run over the course of guideline development in 2011, 2012, and 2013. New evidence was incorporated into the recommendations as necessary.
- Two final updated searches were run in 2015 and 2016 to ensure that new literature was incorporated into the Guideline that would enhance existing evidence within the recommendations.
- The Guideline draft was updated and reviewed by RNAO's guideline development team.
- The Guideline was distributed for review, first to panel members and then to external stakeholders.
- All feedback from panel members and stakeholders was considered and changes were made as necessary to improve the draft.
- Recommendations and evidence were finalized through internal and editorial review at RNAO.
- RNAO's guideline development team reached consensus on the final document.

# Appendix C: Process for Literature Review and Search Strategy

#### Guideline/Report Review

In 2007, specific institutional Websites were searched for relevant material such as executive reports, position statements and guidelines. These websites included:

- Registered Nurses' Association of Ontario (<u>www.RNAO.ca</u>)
- College of Nurses of Ontario (<u>www.cno.org</u>)
- Canadian Association of Schools of Nursing (<u>www.casn.ca</u>)
- American Association of Colleges of Nursing (<u>www.aacn.nche.edu</u>)
- National League for Nursing (<u>www.nln.org</u>)
- Royal College of Nursing (UK) (<u>www.rcn.org.uk</u>)
- HERSDA (Higher Education Research and Development Society of Australasia) (www.herdsa.org.au)
- Government of Canada Advisory Committee Health Delivery and Human Resources (<a href="http://www.hc-sc.gc.ca/hts-sss/hhr-rhs/committee-comite-hdhr-ssrh/index-eng.php">http://www.hc-sc.gc.ca/hts-sss/hhr-rhs/committee-comite-hdhr-ssrh/index-eng.php</a>)

Expert panel members were also asked to provide guidelines or reports from their own personal libraries at that time. In 2015, The RNAO guideline development team's project coordinator searched an established list of websites for guidelines and other relevant content published between 2013 and 2015. This list was compiled based on knowledge of evidence-based practice websites. No new guidelines published between 2013 and 2015 and developed from a systematic review were found.

#### Literature Review

A comprehensive search strategy was developed by RNAO's research team and a health sciences librarian, based on inclusion and exclusion criteria created in conjunction with the RNAO expert panel. An initial search for relevant articles in English published between 1990 and 2007 was applied to the Cumulative Index to Nursing and Allied Health (CINAHL) and MEDLINE. Searches were rerun in 2011, 2012, 2013, 2015 and 2016 to capture any recently published literature that had been released since the previous search had been conducted. The most recent search was conducted in March 2016 to capture articles published since updating the literature in 2015. The following databases have been used to conduct one or more of these searches: CINAHL, MEDLINE, Cochrane Central Register of Controlled Trials (CENTRAL), Cochrane Database of Systematic Reviews (CDSR), Education Resources Information Center (ERIC), and Embase. In addition to this systematic search, panel members were asked to review personal libraries for key articles not found through the above search strategies.

All studies that appeared to meet the inclusion criteria were retrieved and their bibliographies were searched for additional studies. Key authors were also searched through databases and on the Web, and articles were searched in PubMed and Web of Science to identify relevant related articles or others that had cited them.

For searches conducted between 2007 and 2013, papers were assessed by a research assistant, a master's prepared nurse pursuing doctoral studies, for eligibility according to established inclusion and exclusion criteria. Studies were also assessed for quality utilizing standardized quality appraisal tools and RNAO's scoring system that rates articles as weak, moderate, or strong depending on their quality scores. The included studies were summarized in data extraction tables and these summarized results were circulated to panel members to inform the identification of recommendations. The most recent searches conducted in 2015 and 2016 involved a Master's prepared Nursing Research Associate (NRA) from RNAO independently assessing the eligibility of the returned studies and creating data extraction tables and summaries of the evidence to be used in the discussion sections of the recommendations. The quality of included studies was also critically appraised by the NRA using a similar scoring system to what was used between 2007 and 2013.

Detailed information about the search strategy for the literature review, including the search terms, is available at RNAO.ca/bpg/practice-education

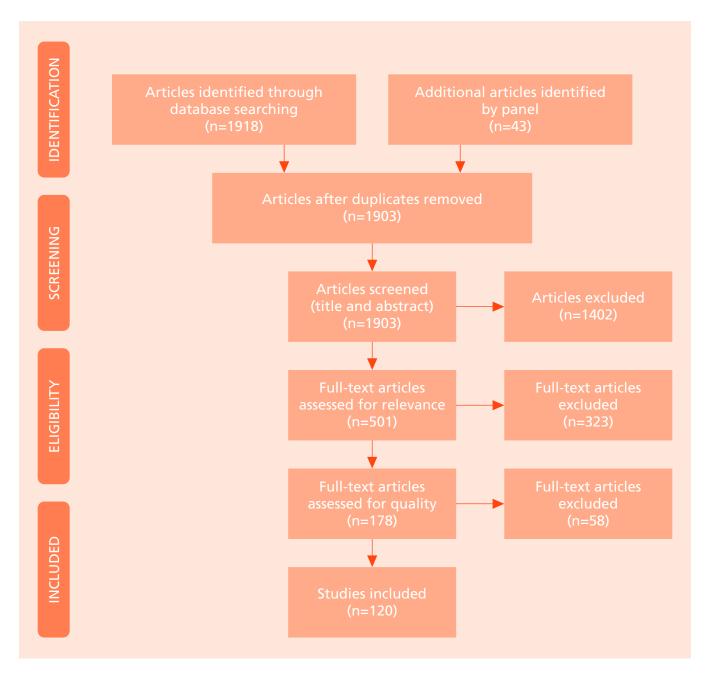


IDENTIFICATION SCREENING ELIGIBILITY INCLUDED

Figure 1. Guidelines/Reports Review Process Flow Diagram from 2007-2015

Source: Adapted from Moher, Liberati, Tetzlaff, Altman, & the PRISMA Group, 2009.

Figure 2. Article Review Process Flow Diagram Cumulative from 2007-2016



Source: Adapted from Moher et al., 2009.

# Appendix D: Skills and Characteristics of the Preceptor

The literature identifies a range of skills and characteristics of the preceptor that should be developed and reinforced in structured educational programs designed for preceptors in order to prepare them for this role (Burns & Northcutt, 2009). Table 4 outlines some of these skills and characteristics and the literature that supports them.

Table 4. Skills and Characteristics of the Preceptor

SKILL/CHARACTERISTIC OF THE PRECEPTOR	LITERATURE SUPPORT
Role modelling	Donaldson & Carter, 2005; Kilcullen, 2007; Kotecki, 2002
Facilitation of dialogue	Chow & Suen, 2001; Filomena & Suen, 2001; Gillespie, 2002; Miller, Devaney, Kelly, & Kuehn, 2008
Supporting the development of mutual respect	Dickson, Walker, & Bourgeois, 2006; Gillespie, 2002; Registered Nurses' Association of Ontario, 2009; Vallant & Neville, 2006
Getting to know the student; being known has a positive influence on trust and ease with the preceptor	Gillespie, 2002; Sedgwick & Yonge, 2008, 2009
Realistic yet negotiable expectations	Gillespie, 2002; Lofmark & Wikblad, 2001
Building confidence	Lofmark & Wikblad, 2001; Myrick, Yonge & Billay, 2010
Promoter of quality patient care	Myrick et al., 2010
Benevolence and nurturance	Filomena & Suen, 2001; Vallant & Neville, 2006
Provision of immediate feedback to enhance student performance and confidence	Donaldson & Carter, 2005; Glover, 2000; Kilcullen, 2007; Lofmark & Wikblad, 2001
Identifying and providing opportunities for student practice	Dickson et al., 2006; Lofmark & Wikbald, 2001; Sedgwick & Yonge, 2008, 2009
Population-based skills and assessment of these skills in community health settings	Cohen & Gregory, 2009; Wade & Hayes, 2010

## Appendix E: Strategies for Providing Clinical Feedback

Providing feedback to students during practice education experiences has been shown to have benefits for both the student's learning needs and for the educator's professional development (Clynes & Raftery, 2008; Glover, 2000). Outlined below are some suggested strategies for nursing educators, preceptors, or clinical nursing instructors to implement when providing structured feedback to nursing students completing a practice education experience.

- Appropriate feedback following a practice education experience should be immediate; informative; not likely to induce overload; sensitive; and focused on the student's performance or behavior, rather than the person themselves (Glover, 2000).
- Feedback that is directed at helping students self-regulate their practice and completed in a timely manner following the experience can motivate further learning (Glover, 2000). Feedback that is given in an ongoing manner, rather than at the end of a practice education experience, can foster changes in practice and learning opportunities that may otherwise not be available (Clynes & Raftery, 2008).
- Feedback can be given both informally and formally, with advantages to both methods. Informal feedback may be in the form of comments given directly after a clinical skill is demonstrated. Formal feedback may involve a debriefing meeting at the end of a clinical shift and involve a written component (Clynes & Raftery, 2008).
- Regardless of the type of feedback, students' privacy and confidentiality should always be taken into consideration when providing feedback. Feedback should be provided in a private location with minimal distractions, and at a time where there is ample opportunity for further discussion (Clynes & Raftery; Glover, 2000).
- When there is an area identified that requires improvement, it may be helpful to use the "Feedback Sandwich" technique, which is a positive statement, then the constructive feedback for improvement, followed by a positive statement (Clynes & Raftery, 2008; Glover, 2000).
- Following providing students with feedback, it is important to assess their understanding of what has been addressed. Providing time for students to reflect and discuss their interpretation of the feedback may help to alleviate any concerns or misunderstandings (Clynes & Rafety, 2008).
- When areas are identified that require improvement, it may be helpful to work with the student to develop strategies to achieve competence and meet goals to ensure quality patient care in the future (Glover, 2000).

Sources: Clynes, M.P., & Raftery, S.E.C. (2008). Feedback: An essential element of student learning in clinical practice. Nurse Education in Practice, 8, 405-411.

Glover, P. A. (2000). "Feedback. I listened, reflected and utilized": Third year nursing students' perceptions and use of feedback in the clinical setting. *International Journal of Nursing Practice*, 6(5), 247–252.

# Appendix F: NLN Jeffries Simulation Theory and Steps for Constructing a Simulation

The National League for Nursing (NLN) Jeffries Simulation Theory (Jeffries, 2016) is a mid-range nursing theory that promotes evidence-based practices for teaching and learning during a simulation experience. The theory, based on the NLN Jeffries Simulation Framework conceptual illustration and previous simulation research, provides important concepts regarding the facilitation of simulation experiences in nursing education (Jeffries, Rodgers, & Adamson, 2015). The theory incorporates how the contextual factors, the background elements, and design aspects inform the simulation experience (Jeffries et al., 2015). In addition, simulations have characteristics within the environment they occur that enhances the quality of the experience (Jeffires et al., 2015). According to the NLN Jeffries Simulation Theory, these characteristics include an environment that is:

- experiential;
- interactive;
- collaborative:
- learner centered; and
- incorporates the establishment of trust (Jeffries et al., 2015).

Within the simulation experience, there is also a dynamic interaction between facilitator and participant, with the facilitator drawing on educational strategies to address participant needs (Jeffries et al., 2015). As a result of the simulation, there are three categories of outcomes: system, patient, and participant (Jeffries et al., 2015). More information on how to access the complete NLN Jeffries Simulation Theory and additional simulation resources can be found on the NLN website at <a href="http://www.nln.org/professional-development-programs/simulation">http://www.nln.org/professional-development-programs/simulation</a>.

Sources: Jeffries, P.R. (Ed.) (2016). The NLN Jeffries Simulation Theory. Washington, D.C.: National League for Nursing.

Jeffries, P.R., Rodgers, B., & Adamson, K. (2015). NLN Jeffries Simulation Theory: Brief narrative description. Nursing Education Perspectives, 36(5), 292-293.

Previous work by Jeffries (2006) also depicts specific steps for constructing a quality simulation experience (Table 5). These steps and corresponding components are based on the notion that a simulation framework or theory will ultimately be used to underpin the simulation experience.

Table 5. Steps for Constructing a Simulation

STEPS	COMPONENTS OF EACH STEP
1. Developing the blueprint	Complete literature review  Use a simulation framework*
2. Procuring the bill of materials	Gather equipment, props, and materials  Set schedules for students  Make room reservations/set-up  Arrange videotaping (optional)
3. Assembling the structure	Define the teacher's role  Define the student's role  Embed the educational practices  Design the guided reflection  Set time for simulation and guided reflection
4. Finishing the project	Refine or revise the structure (simulation) as needed Evaluate learning and process outcomes Disseminate findings

<sup>\*</sup>This could include the NLN Jeffries Simulation Theory (2016).

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