do **learning approaches** influence **practice-readiness?**

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There continues to be considerable debate about how to prepare nursing students so that they are ready to practise. A recent study with RNs, managers and educators in Alberta showed that:

- **there is a strong perception that practice-readiness is an idealistic, largely impossible goal that has reached "mythical proportions" because there is a limit to how much students can learn in generalist-oriented programs**
- **the level of practice-readiness is often considered to be an educational problem, but it is more of a larger systems-level problem**
- **there is a persistent perception that nursing programs do not include sufficient opportunity to develop strong psychomotor skills**
- **the multiple stressors experienced by new graduates result in a pervasive fear of making mistakes and "not doing a good job" for six months to a year following graduation (availability of consistent mentoring, orientation and clinical support on the unit help to alleviate this stress)**

The more confident and competent nurses feel upon graduation, the more likely they are to remain in professional practice. Closing the theory/practice gap in nursing education enhances their knowledge acquisition and critical thinking. Problem-based learning is one approach used to close that gap for graduate nurses. In addition to teaching theory through text and lectures, problem-based learning provides context to theory by presenting students with real-world situations similar to those they might encounter in their future practice. The student assumes the role of an RN as they work through actual practice scenarios designed to engage their critical thinking and clinical judgement. They then join a group discussion on the learning to foster peer teaching and learning. The philosophy behind problem-based learning is that the more realistic the theory aspect of learning is, the easier it is for students to grasp and apply it in practice.

Originally developed and used at McMaster University in Ontario in 1968, problem-based learning is now used to educate many disciplines, particularly medical and health professions. The University of Alberta BScN Collaborative Program is one of only two undergraduate nursing programs in Canada to use this approach and has been doing so since 1997. The program has opted to describe the program as "context-based learning" rather than problem-based learning in the belief that not all encounters with clients are problematic in nature.

5 ESSENTIAL ELEMENTS OF Problem-Based Learning

1. **Learning is student-centred.**
2. **Learning is triggered with a scenario designed to help the student find and apply relevant knowledge.**
3. **Learning occurs in small, collaborative student groups under the guidance of a tutor.**
4. **Learning is contextual and integrated with realistic problems, concerns and/or situations.**
5. **The tutor fosters the intellectual and interpersonal process for the group.**

Research shows that students educated with a problem-based learning approach may be:

- more highly motivated
- better problem-solvers
- more self-directed learners
- better able to learn and recall information
- better able to integrate basic science knowledge into clinical practice

It is unclear if the problem-based learning approach affects self-rated academic competencies. It does not seem to influence clinical competence. Medicine graduates with a problem-based learning education report that they feel well prepared for practice, especially in interpersonal skills, problem solving, self-directed learning and the ability to plan and work efficiently. In contrast, nursing students report they initially feel inadequate in clinical settings, but are able to adapt and continue learning. A small amount of research exploring the experience of problem-based learning for post-registration shows that experienced clinicians can have difficulties transitioning and adapting to the approach. Often, post-registration students have a negative perception of the effect of problem-based learning on program completion. But, after time and distance from the program, the perception of the approach's impact on their role is far more positive, especially in the areas of increased confidence, assertiveness, critical thinking and evidence-informed practice. There is limited research on employer perceptions about the knowledge, competency and professionalism among graduates with a problem-based learning education. However, there is a paucity of outcome research documenting the effectiveness of the approach once the graduate enters professional practice at the RN or advanced practice level.

Despite much literature on the advantages of problem-based learning, more research is needed to determine its

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Research shows that irrespective of setting, country or educational system, the transition from nursing student to professional registered nurse practice can be difficult for a number of reasons including:

- the pressure to perform at a graduate level while still learning about the work and practice environment can exacerbate a disconnect between what graduate nurses learned in school and the realities of the work place
- practice or job readiness—the ability of graduate nurses to "hit the road running" seems to be evaluated by their deficits instead of clearly agreed upon attributes
- work environments are increasingly more complex— comprehensive orientation, clinical support programs and continuing education are continually being eroded

- graduate nurses are highly dependent on senior nurses' expertise and guidance, which are not always readily available
- the primary focus of graduate nurses is often task completion, time management and fitting in to the unit
- after six-to-nine months, graduates start to experience a sense of fitting in, although it can it can take up to two years for graduate nurses to develop their professional self-concept

affect beyond the initial transition into the RN profession. The majority of current research stops at the point of graduation and only focuses on faculty and student perceptions of effectiveness, as well as their experiences and satisfaction during the program and immediately after graduation. At the moment, we can only speculate as to whether differences in outcomes and practice between graduates educated in problem-based learning or traditional nursing programs are similar or different – or at which point they merge or differentiate.

More research is also needed to:

- evaluate the effectiveness of the education theories behind problem-based learning
- determine if problem-based learning is superior in terms of student, faculty and cost evaluation and in terms of objective and perceived measures of practice competence
- determine if problem-based learning approaches are effective in producing clinicians who maintain consistently high levels of performance throughout their professional careers

Each year, the University of Alberta gathers data about its context-based learning program, including strengths and areas for improvement. At graduation, nursing students are not able to describe how the program will affect their professional practice. Evidence about effectiveness in ensuring nursing students meet a safe level of preparation can be measured to a certain extent by success rates in the Canadian Registered Nurse Exam. Research is underway at the university to determine the program's lasting effects and how they differentiate from other educational approaches.

SOME BEGINNING QUALITATIVE research on problem-based learning in advance practice suggests its effect continues beyond the initial transition into the RN role. In particular, it enhances three areas of nursing practice:

1. **viewing patients holistically**
2. **integrating general principles of care and treatment in specific and unique situations**
3. **embracing self-directed, life-long learning**

There is little substantive evidence to support longer-term effects on practitioners.

Rowan, C., C. McCourt, and S. Beake, Midwives' reflections on their educational programme: a traditional or problem-based learning approach? Midwifery, 2009. 25(2): p. 213-222.

U of A BScN Collaborative Program Graduates Sought For Study

Researchers at the University of Alberta, along with researchers from Red Deer College and Grande Prairie College, are seeking practicing and non-practicing nurses who graduated from the University of Alberta BScN Collaborative Nursing Program in 2001 or later to participate in a study to measure the effectiveness of context-based learning.

You will be asked about how your nursing program contributed to who you are as a nurse and the way you practise to explore possible links between your education, knowledge, professional values, team work and other aspects of your practice. You will also be asked if your work place has increased, lessened or otherwise changed the values and customs you learned in school.

Information is being collected through focus groups and individual interviews with nurses living in Edmonton, Red Deer, Grande Prairie and Fort McMurray. If you live outside these areas and wish to participate, a telephone or email interview will be arranged.

"The Influence of an Undergraduate Context-Based Learning Program on Evolving Professional Nursing Graduate Practice" study is funded by the University of Alberta Teaching and Learning Fund. It aims to help educators and employers prepare and support graduate nurses. This study has been reviewed and given ethical approval by the relevant academic and clinical agencies.

All BScN collaborative program graduates are invited to take part in this study. To participate, call 780.248.1563 or email CBL.research@nurs.ualberta.ca.

Graduate Nurse: Scope of Practice

THE CARNA INTERPRETIVE DOCUMENT
The Graduate Nurse: Scope of Practice provides guidance about supervision, accountability and support of graduate nurses. The document also provides information about the scope of practice of graduate nurses for RNs, managers, administrators, other care providers, employers and other stakeholders.

Go to www.nurses.ab.ca and click on CARNA Publications under the Resources tab to download the document

The following CARNA documents also support graduate nurses to make decisions about their practice:

- *Entry-to-Practice Competencies for the Registered Nurses Profession* describes the competencies expected of new graduates from an approved nursing education program leading to initial entry to practise as a registered nurse and includes a profile of newly graduated registered nurse practice and what to reasonably expect.
- *Guidelines for Assignment of Client Care* provides a tool to assess client risk factors and health-care needs and provides support in staff mix decision-making.
- *Evidence-Informed Staffing for the Delivery of Nursing Care: Guidelines for Registered Nurses* provides evidence-informed principles that support the use of best practices to determine, implement and evaluate nursing staff skill mix, staffing patterns and models for delivery of care.

Continued support of graduate nurses is essential to keep them in the workplace and in the profession. It is important for graduate nurses to gain confidence, experience, knowledge and skill in a workplace that values and supports their contribution to the health-care team.