FINAL REPORT

EXPANDING THE EVIDENCE FOR NEW GRADUATE NURSE TRANSITION BEST PRACTICES

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Executive Summary

The global nursing shortage has accelerated efforts to ensure a smooth and effective transition of new graduate nurses into the workplace. Transition programs have emerged internationally to facilitate new nurses’ integration into the workplace. In 2004, Health Authorities in the province of British Columbia began to establish New Graduate Nurse Transition Programs to assist graduate nurses who were experiencing problems in the transition and to facilitate recruitment. They have evolved over time into programs that share some commonalities and yet have unique variations to accommodate the needs of each Health Authority. The purpose of this 3-Phase study was to examine the application of best practices in British Columbia new graduate nurse acute care transition programs with a view to development of a best practices tool kit. A cursory review of the literature together with the expert input of the working-steering committee led to a focus on the following components of transition programs: education, support, competence/critical thinking and workplace environment.

Phase 1 involved an integrative review of the literature to identify best practices of formal New Graduate Nurse Transition Programs. Overall, the findings revealed limited strong evidence to support best practices related to constituent components of these formalized programs. A consistent theme throughout the literature was that formal transition programs improve retention and decrease turnover rates. Although a range of education modalities were described within the context of these programs none could be recommended as best practice. A modicum of evidence appeared for including a transition program of at least 9 months that includes longer orientations, trained preceptors, mentorship and peer-support opportunities, as a means of support. “Healthy” workplace environments reduced transition shock and promoted transition.

The mixed methods study in Phase 2 obtained multiple stakeholder perspectives of transition programs through a series of focus groups and individual interviews and solicited new graduate self-reports of their transition programs and a quantification of their transition experience through an online survey. Survey findings revealed that orientations of four months or greater, 49 hours or more of work in a two week period, and participation in a transition program were associated with more positive transition experiences. Thirty-nine percent of new graduates reported bullying/harassment in the workplace but participation in a formal transition program improved their transition. For new graduates who were bullied/harassed and those who were not, higher total transition scores were associated with a greater ability to access support when needed but this positive relationship was weaker among nurses who were bullied/harassed. For new graduates who participated in a transition program the more helpful the preceptor/mentor, unit staff and workshops/inservices, the greater their total transition scores. Qualitative findings uncovered role ambiguity and confusion among stakeholders in the transition program. Although there were identified gaps, new graduates were generally satisfied with undergraduate education. Employed Student Nurse Summer programs, while valued by all stakeholders, carried expectations that influenced the support new graduates received during transition. Further, transition programs require formal processes of orientation, preceptor/mentorship and development plans in a learning workplace environment supported by all staff and physicians.
Findings from Phase I and II informed the development of a Best Practice Toolkit that will be a resource for agencies involved in Transition Programs. The identified best practices reflected in the toolkit may involve uncontrollable issues, such as health care funding, academic curriculum changes, policy impacts and or organizational restructuring which is outside the purview of this research study.
Project Overview

The University of British Columbia-Okanagan (UBC-O) nursing program and Interior Health have a strong collaborative relationship. Over 400 students participate in clinical education within Interior Health facilities, and a formal transition program has been initiated. The Michael Smith Foundation’s request for proposals for projects investigating new graduate nurse transition was felt by both University of British Columbia-Okanagan and Interior Health to be an ideal opportunity to evaluate and further evolve the transition program. Dr. Kathy Rush, UBC-O School of Nursing faculty member, and Monica Adamack, Professional Practice Lead from Interior Health (IH) collaborated to develop a proposal for an academic/practice focused research study on New Graduate (NG) transition.

The RFP outlined a need for a provincial overview and therefore a steering committee comprised of representatives from British Columbia’s (BC) Health Authorities was formed. This team consisted of the leads (see Acknowledgements) of the New Graduate programs within the seven Health Authorities. This team assisted the researchers in determining the direction the study would take, provided the in-roads to the Health Authorities research/ethics boards, identified the best routes to take for engaging New Graduates in the study, and shared detailed information regarding their programs. The study would benefit each of their organization’s New Graduate transition programs in providing best evidence towards the program compositions.

A literature review was initiated in November of 2011 and lead by Robert Janke, research librarian at UBC-Okanagan. The Primary Investigators, with assistance from Dr. Meredith Lilly, synthesized the results of the literature review and used this information to guide the creation of the quantitative and qualitative data collection tools. The quantitative data collection tool was an online survey involving questions related to demographics, orientation, transition, and the Casey-Fink Nurse Graduate Experience survey. The qualitative data collection tools were focus group interview guides specific to New Graduates, front-line nurse managers and care coordinators, and transition program coordinators. These data collection tools were further refined through input from the working-steering committee, and a strategy for data collection was finalized.

The project was then submitted for review to the following ethics review boards: Northern Health, Fraser Health, Vancouver Island Health, and Vancouver Island University. After some modification to satisfy the aforementioned boards, the project was submitted to the ethics review board of UBC-Okanagan. The UBC-Okanagan research ethics process is harmonized with the remaining Health Authorities: Interior Health, Vancouver-Coastal, Providence Health, and Provincial Health Services. The project was approved by the University of BC-Okanagan Research Ethics Board on June 1, 2011.

With the research ethics process completed, the project shifted to data collection. Working-steering committee members from each Health Authority worked with the Primary Investigators and research assistants to carry out the project information dissemination strategy outlined in the ethics process. This strategy was implemented to recruit participants to the study for both the online survey and the focus group interviews.
The online survey was sent to 1,008 New Graduates, and 257 completed the survey for a response rate of 26%. Twenty-three focus groups were performed across BC (n= 48 New Graduates, n= 69 Nurse Managers, n = 9 Transition Program Coordinators).

Data analysis of the online survey was performed via open source statistical software package, and included modeling that addressed twenty-one research questions. Analysis of the qualitative data collected from the focus groups was completed through the use of NVivo software.

Triangulation of the findings from the literature review, online survey, and focus group data was utilized to determine themes and strength of evidence for components of transition programs to be recommended in the tool-kit.
Acknowledgements

The New Graduate Integration Team (NewGit) would like to acknowledge the Michael Smith Foundation for Health Research for providing the funding for this project. It would also like to recognize the contributions to the project from the Advisory Committee:

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Robert Janke, MLIS, BA – Librarian, University of British Columbia Okanagan
Ann Holroyd, PhD, RN – Nursing Instructor, Vancouver Island University

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Northern Health – Andrea Starck, BSN
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Provincial Health Services – Sandra Harris, MSN, BSN
Vancouver- Coastal – Pat Semeniuk, MA, BN, and Denise Delane, BSN, and Khairunnissa Rhemtulla, MEd, BSN
Vancouver-Island – Joanne Maclaren, MN, BSN, and Diana Campbell, MPA, BSN

The project also included individual interviews with faculty from nursing academic programs, thus NewGit would like to recognize the contributions of North Island College, University of British Columbia - Okanagan, and Vancouver Island University.

Lastly, NewGit would like to acknowledge the contributions of our statistician, research assistants and host Health Authority:

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Project Context and Objectives

The projected nursing shortage has drawn national and international attention to the recruitment and retention of new nurse graduates. Central to recruitment and retention concerns has been New Graduates’ transition to practice. The readiness of new graduates for practice has been a longstanding issue with a significant and problematic developmental lag existing between being a student and entering the workplace as a graduate nurse (Romyn et al, 2009; Wolfe, Pesut, & Regan, 2010). The well documented global theory-practice gap (Maben, Latter, & Clark, 2006) is reflected in gaps in new graduates’ role-related knowledge, skills, and clinical judgment. Del Bueno (2005) found that 65% to 76% of US new graduates lacked expectations for entry-level clinical judgment. Swedish neophyte nurses were rated lowest in the areas of informing and teaching co-workers and students and planning and prioritizing nursing interventions (Lofmark, Smide, & Wikblad, 2006). Further, near misses and omissions and errors were observed among Norwegian new nurses’ performance of clinical skills (Bjork & Kirkevold, 1999).

There is a plethora of literature on the transition of the new nurse graduate to practice, dating back to Kramer’s (1974) seminal work on the nature of this transition as a reality shock. Various facets of this transition have been studied including new graduates’ perceptions and experiences of the transition (Goh & Watt, 2003), support (Johnstone, Kanitsaki, & Currie, 2008), competence (Lofmark et al; Ramritu & Barnard, 2001), retention (Altier & Krsek, 2006), job satisfaction (Altier & Krsek), the workplace environment (Lavoie-Tremblay, Wright, Desforges, Gelinas, Marchionni, & Drevniok, 2008) and organizational infrastructure (Schoessler & Waldo, 2006). In addition, New Graduate transition models have been developed that capture this very unique developmental process (Boychuk-Duchscher, 2009).

Transitional programs have emerged internationally to support the integration of new nurses into the workplace. While some question the need for graduate transition programs, proponents regard them as essential for new graduates and in some countries they have even been standardized (Spector & Echternacht, 2010). Referred to as transition support programs, new graduate nurse programs, residencies, or internships, transition programs have been diverse in duration, structure, content, program components, and financial support. Components generally include a combination of the following: education, formal or informal preceptorships or mentorships, extensive supernumerary time, and formal orientation programs. Although transitional programs have been implemented across a range of practice settings, the majority have been developed for the acute care workplace, where 60% of new graduates choose to practice.

Evidence has been mixed in demonstrating the value of these programs (Evans, 2008). On the basis of their review, Levett-Jones and FitzGerald (2005) concluded that nurse graduate programs as a whole and their constituent components have not been studied in a systematic, comprehensive or objective manner to determine their efficacy or cost-effectiveness. Although there has been a volume of work done in the area, there has been little consensus regarding what constitutes best practice.
This project was guided by a three-fold purpose: i) to determine best practices from the literature for integrating New Graduates in the workplace (Phase I); ii) to analyze the current application of identified New Graduate best practices within the British Columbia (BC) context for strengths and gaps (Phase II); and iii) to develop a best practices toolkit for use with BC new nurse graduates (Phase III).

The study utilized a process-oriented approach that was sensitive to context: an important consideration in the highly variable health human resource arena and in situations such as graduate transitional programs where costs, efficiency, feasibility and political climate require a broader, multi-factorial approach than the traditional gold standard based solely on outcomes evidence. Targeted areas emerged in the early stages of the project development that served as the guiding framework for the study:

1. Education in the pre-registration (undergraduate) stage, orientation, and transition of New Graduates

   What best practices for preparing undergraduate nursing students for the transition are being included in BC nursing educational programs? What are barriers to incorporating academic education best practices? What strategies could expand use of academic education best practices? What educational best practices for new graduates are being used? When are they included? Are they formal or informal? What educational best practices facilitate NG integration? What are barriers to incorporating practice education best practices? What strategies could expand use of practice education best practices?

2. Support and satisfaction of New Graduates

   What best practices related to support are given, when, where, and how? Are they formal or informal? What best practices related to support facilitate New Graduate integration? What are barriers to incorporating best practices related to support? What strategies could expand use of best practices related to support?

3. Competency and critical thinking

   What best practices for consolidating competencies are applied in the New Graduate program? How are they assessed, monitored and developed? When are skills consolidated? What are barriers to application of best practices for skill consolidation, and strategies to expand uptake?

4. Workplace environment

   Does the work environment support the best practices for New Graduate integration?

An expanded base of evidence for best practices was obtained utilizing traditional sources of scientific literature, institutional documents and databases related to existing transition initiatives and programs, unpublished program reports, input from experts and stakeholders, and new evidence gathered from our own data collection process.
New Graduate Transition in British Columbia

As British Columbia (BC) was the focus of the data collection portion of the investigation, it was essential to have knowledge of New Graduate transition in this province. In the late 2000’s the seven Health Authorities initiated transition programs in response to difficulties in recruiting and retaining New Graduates. Each Health Authority developed its own unique New Graduate transition program, which has changed and grown over the years. Health Authorities had to find funding within base budgets to support New Graduate transition, often with no new dollars available to develop or grow a program. Thereby, no standardized provincial approach was sought and instead was dictated by the financial picture of the Health Authority. Over the years the programs have evolved and now incorporate shared features such as a general and unit specific orientation, supernumerary time, a defined resource person(s), and formal education opportunities. A summary of BC New Graduate Transition Programs by Health Authority is provided in Appendix A.

Every new nurse (New Graduate or transfer) employee hired by a Health Authority attends both general and unit-specific orientation. The general orientation is a requirement of Workplace Health and Safety and contractual negotiations, while the unit specific orientation that follows is the natural process of preparing new hires for the work environment. The amount of time allocated for orientation and the degree of supernumerary time varies across Health Authorities depending on whether New Graduate funding has been received, and on whether the New Graduate was previously hired in another role within the Health Authority. Similar funding issues impact how many New Graduates receive funding to take part in their organization’s formal New Graduate transition program (if applicable).

As information within the literature and at nursing conferences (e.g. Working Integration of New Nurses) emerged, Health Authorities added defined resource people to assist with the management of the program, but more importantly to provide support to the new graduate. At a program level this resource person is typically referred to as a new graduate program coordinator or manager, and the number of employees in this role varies depending on the size of the Health Authority. At a unit level, the defined resource person is a preceptor or ‘buddy’ on the unit. The majority of Health Authorities offer some form of formal education opportunities for preceptors who supervise the New Graduates during the supernumerary period; however attendance is typically voluntary.

All Health Authorities offer their New Graduates formal education opportunities as part of their transition program. There is some variation in content across Health Authorities, but topics typically include items such as Judy Boychuk-Duchscher’s (2008) work on transition theory, inter-generational differences, receiving feedback, and critical thinking and decision-making. In some Health Authorities only the New Graduates that receive transition funding are eligible to participate in the transition program. All seven Health Authorities have established partnerships with nursing education programs and offer information sessions to graduating nurses regarding their transition support programs.
British Columbia is unique to many jurisdictions due to a well-developed Employed Student Nurse program (Gamroth, Budgen and Lougheed, 2006). This program offers nursing students employment opportunities in BC Health Authority facilities, and results in general and unit specific orientations occurring while participants are still in their undergraduate education. The program was developed in partnership with employers, educators, the Registered Nurses’ Association of BC and the BC Nurses Union. The goals of the program are to:

- offer paid part-time or part-year employment to students to help offset the costs of nursing education
- provide student nurses with clinical nursing experience so that they will be job ready when they graduate
- foster a climate of professional renewal and give current registered nurses some hope that their workload will improve over time
- increase the recruitment of new graduates in BC by building an employment relationship prior to graduation

This program has provided flexibility to the Health Authorities to develop their transition programs. For example, both general and unit specific orientations have been shortened as new graduate participants are often familiar with the facility / unit. Investigation into New Graduate transition in British Columbia is not possible without taking into consideration the impact of the Employed Student Nurse program.

It is important to note that at the time of this study new nurses fell into an unknown economic process wherein retirements were looming, post-secondary seats were expanded and then an economic downturn (2009) occurred resulting in existing nurses delaying retirement. This has created a surplus of new graduates, with organizations only hiring into casual positions. The availability of opportunity for new graduate nurses is not as abundant, causing financial stress on the New Graduate.
PHASE 1 – LITERATURE REVIEW

Purpose
To determine best practices from the literature for integrating New Graduates in the workplace.

Methodology
Cooper’s (1989) five-stage integrative review guided the process. Following the first stage of problem formulation ensued data collection, evaluation of data points, data analysis and interpretation, and presentation of results. The search strategy that guided the literature review is outlined below.

A standardized charting form was developed that included significant elements for extraction from each of the 47 selected papers. Using RefWorks, a bibliographic management tool, papers were categorized depending on their focus according to four major themes: Education (pre-registration and practice), Support/Satisfaction, Competency and Critical Thinking, and Workplace Environment. Papers were reviewed for study design, sample size, program elements (e.g. orientation length, transition length, education, supports), and outcomes (e.g. competency, critical thinking, job satisfaction).

In addition, each paper was scored for its levels of evidence using the following criteria, that were adapted from a system developed by Beck (2001) and later adapted by Park and Jones (2010): Study design (Quasi-experimental = 3 points; Longitudinal = 2 points; Descriptive and Qualitative = 1 point);
Sample size (Greater than 100 = 3 points; 50 – 100 = 2 points; 0 – 50 = 1 point); and Author (Multiple publications (>3) in the transition program literature = 2 points; Limited number of publications within the transition program literature = 1 point). Sample approach was initially used to appraise quality but the poor reporting of this criterion in the literature led to it being excluded. The result was a level of evidence score specific to each article from 3 (lowest level) to 8 (highest level). Articles with levels of evidence scores from 6 to 8 (n=10) were considered to be strong, and to contribute more weight to the discussion and recommendations derived from the review. Two research team members independently scored the studies, with good inter-rater agreement (fixed-marginal kappa score of 0.81).

**Results: Best Practices**

A table summarizing studies included in this literature review can be found in Appendix B. The majority of studies used descriptive designs (n=26), but quasi-experimental (n=8), qualitative (n=5), and longitudinal (n=4) designs were also represented. Sample sizes reported in the 47 articles reviewed ranged from 10 to 7,907, with a median of 387. Less than 25% of the primary authors of the literature in this review had more than 3 publications in the general transition program literature.

Another challenge was identifying the scope of the preceptors’ role during the orientation portion of transition. Despite the frequent use of preceptors, seldom did the literature define the proportion of a New Graduate’s shifts that were with a preceptor, whether the preceptor had received training, or if there was a formal matching process. New Graduate education was also a common theme in the literature, but again poorly described. Content, methods of delivery and total number of hours for formal education were infrequently reported.

The literature review revealed both generic transition programs (n=13), and programs based on a specific model: Extended Preceptorship (n=11), Mentorship (n=7), Residency (n=10), Internship (n=2). Transition programs varied in length from less than one month to over a year, with 14 papers not specifically identifying a program length. Transition programs typically provided the New Graduate with defined resource person(s), formal education, and peer support opportunities. Having a transition program resulted in a cost-benefit for the agency due to improved New Graduate retention and decreased turnover (Appendix B2).

The literature was further analyzed according to the four main foci of the project: Education (from pre-registration to transition), Support/Satisfaction, Competency and Critical Thinking, and Workplace Environment.
Education (pre-registration to transition)

Pre-registration

Anecdotal reports within the literature identified a significant proportion of nurse managers and New Graduates feel New Graduates are not prepared to meet the requirements of entry-level practice upon graduation. A large retrospective study collected data via survey from more than 7,000 New Graduate Nurses in the U.S. Findings showed that stronger nursing preparation programs included common education elements such as faculty that taught didactic content and clinical activities, used information technology and evidence-based practice, integrated pathophysiology and critical thinking throughout the curriculum, and delivered content related to the care of specific client populations including care of medical-surgical clients, care of clients with psychiatric disorders, and women’s health as independent courses (Li and Kenward, 2006). Several articles described academic-practice partnerships that resulted in human resources support such as additional clinical practicum opportunities (Campbell et al., 2001), academic involvement in preceptor education (Pickens and Fargostein, 2006), and access to academic offerings by staff (Roche et al., 2004).

Transition

Formal education offered with New Graduate transition programs was frequently mentioned, but rarely well-described or specifically evaluated. Only two of the thirteen papers (Blanzola et al., 2004; Young et al., 2008), provided a breakdown of the time spent on each component (e.g. hours spent on practical education vs. hours spent on theoretical classroom type learning). Opportunities were typically delivered via course work and classroom sessions and included clinical practice topics such as pain management, end-of-life care, medication errors, supporting the family during crisis, and pathophysiology (Blanzola et al., 2004; Gavlak, 2007; Strauss, 2009; Beyea et al., 2007). Further into the transition programs professional development topics were introduced that included managing the complex patient, conflict resolution, action-oriented learning, and leadership (Blanzola et al., 2004; Keller et al., 2006; Schoessler and Waldo, 2006).

Self-evaluations from nurse graduates suggested that providing dedicated time during transition for specific skill practice results in higher levels of New Graduate comfort (Gavlak, 2007). Such practical skill development opportunities were preferred to formal classroom instruction, as evidenced by comments such as “the classes were overwhelming and took time away from patient care,” and “There are a lot of subjects that are not relevant to my practice area. My time would be better spent on the unit” (Fink et al., 2008). The use of human patient simulation (Beyea et al., 2007) holds promise, but warrants further investigation within the context of a formal New Graduate transition program.
Support/Satisfaction

Typically, New Graduates receive initial support via a unit orientation, and often through a preceptorship. An orientation component is specifically described in eighteen papers within the transition program literature with periods ranging in length from less than 4 weeks to more than three months, and with preceptorship as a strong theme. Some weaker evidence within the transition program literature suggested longer orientations that met New Graduate’s needs resulted in better satisfaction and retention (Scott et al., 2008), while stronger evidence showed improved new hire satisfaction with orientation (Baggot et al., 2005) and improved retention (Baggot et al., 2005; Lee et al., 2009) when preceptors has received formal training. Although there was considerable variation in the length of preceptor training programs (from 3 hours to 3 days) and delivery methods, common elements included adult learning principles, learning styles, conflict resolution, and Benner’s (1984) novice to expert transition framework. There was also significant evidence to suggest New Graduate job satisfaction and levels of organizational commitment were lowest near the six month period post-hire (Bratt, 2009; Krugman et al., 2004), and improved over the course of the next six months (Krugman et al., 2004; Williams, Goode, Krsek, Bednash, and Lynn, 2007; Casey et. al, 2004). Thus it appeared New Graduates experience an initial level of reality shock during their transition to practice lasting six to nine months post-hire, and emerge from this towards the end of their first year. It can be reasonably argued that New Graduates should receive some level of formal support for longer than six months post-hire to address this crucial period. Also, strong evidence within the literature demonstrated retention is higher and turnover is lower when New Graduates were involved in a transition program (Appendix B2).

Competency and Critical Thinking

Competency and critical thinking were significant, yet poorly investigated, themes in the literature. Standardized tools utilized to measure competency included the Performance Based Development System (Anthony and del Beuno, 2001), the Professional Judgment Rating Form (Facione et al., 1998), and the Casey-Fink Graduate Nurse Experience (Goode et al., 2009). Increased competency as a result of participating in a transition program was found regardless of rater (self, peer, preceptor, manager, or administrator), duration, or type of transition program (Komaratat and Oumtanee, 2009; Beyea et al., 2007; Goode et al., 2009).

Weaker evidence suggested New Graduates feel inadequately prepared in areas such as medication administration to groups of clients (Li and Kenward, 2006; Smith and Crawford, 2003), pharmacology (Rydon et al., 2007), nurse-physician interactions (Casey et al., 2007; Li and Kenward, 2006), and felt there was a deficiency in clinical practice opportunities during undergraduate education (Ellerton and Gregor, 2003). Problem-based learning improved critical thinking abilities when compared to traditional methods of education (Uys et al., 2004), but warrants further study within the context of a transition program.
Workplace Environment

Workplace environment is a significant factor potentially impacting New Graduate transition, yet it was not heavily studied in the context of a formal transition program. A comprehensive investigation of New Graduates (n=371) in a transition program and their workplace environment utilized a standardized tool to rank the health of clinical units’ work environments employing New Graduates, and demonstrated those working on clinical units identified as ‘Healthy’ or ‘Very Healthy’ work environments experienced less reality shock as they transitioned to practice (Kramer, Brewer, & Maguire, 2013). There was strong subjective feedback from New Graduates that revealed a lack of acceptance and respect, and an insensitivity of experienced nurses to New Graduate needs for continued development in time management skills (Casey et al., 2004). Also, the availability of peer support and the camaraderie it provided were reported as satisfying aspects of the New Graduate work environment.
PHASE 2 – MIXED METHODS STUDY

Purpose

The purpose of the mixed methods study was to analyze the current application of identified New Graduate best practices within the British Columbia (BC) context for strengths and gaps.

Best practices associated with New Graduate transition programs found in the Phase 1 literature review were limited and influenced the direction of Phase 2 and the plan for analyzing the application of best practices in the BC context. The original plan was modified to accommodate these limitations and broaden this study to look at New Graduate transition program practices in general (whether they were best practices or not). A mixed methods study (Doyle, Brady, & Byrne, 2009) was designed to provide a comprehensive picture of new nurse graduate transition practices in selected BC hospitals, across seven Health Authorities, from the perspective of multiple stakeholder groups. The qualitative component of the study involved focus groups with new graduates, nurse leaders, and New Graduate transition coordinators; individual interviews were conducted with academic educators. The quantitative component of the study included an online survey of new graduates, who were within a year of starting employment. In June of 2011 final approval was received from the UBC-Okanagan Research Ethics Board (Appendix C), and data collection commenced immediately thereafter.

Qualitative Component- Methodology

The purpose of the qualitative study was to understand New Graduate transition program current practices from the perspective of multiple stakeholders.

Design

The qualitative component of the mixed methods design involved a combination of focus groups and individual interviews with multiple stakeholder groups.

Sample

Following ethics review sample recruitment began. The sample for the qualitative study included four stakeholder groups: New Graduates, front-line nurse managers (e.g. - clinical unit coordinators and care coordinators), transition program coordinators, and nurse educators from academic programs. Potential New Graduate (class of 2010) and nurse leader participants working in acute care from all Health Authorities were recruited by email through a letter of information and invitation (Appendix D). Each Health Authorities’ internal mechanisms for communication were used. Additional recruitment and promotion of the project and invitation to participate occurred through posters (Appendix D2) that were placed within hospitals in areas frequented by New Graduates and managers (e.g. - Nurse staff room). New Graduate transition program coordinators and academic nurse educators were recruited through an invitation from the Working-Steering Committee member affiliated with the relevant Health Authority or educational institution.
**Data Collection**

Data collection involved individual interviews with nurse education faculty, and separate focus group interviews with New Graduates, front-line nurse managers, and transition program coordinators. Three researchers facilitated the focus group interviews using the semi-structured interview guide specific to each stakeholder group (Appendix E). The PIs developed the interview guides initially and made modifications based on input and feedback from the working-steering committee. The number of focus groups held in each Health Authority was proportional to the number of New Graduates employed, thus more sessions were offered in those Health Authorities with larger numbers of New Graduates such as Fraser, Vancouver-Coastal, Vancouver Island, and the Interior. The total number of participants is outlined in the following table.

**Table 1: Focus Group Numbers per Health Authority**

<table>
<thead>
<tr>
<th>Health Authority</th>
<th>Total # of Sessions</th>
<th>Total # of New Graduate Participants</th>
<th>Total # of Nurse Manager Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraser</td>
<td>6</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Interior</td>
<td>6</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>Northern</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Providence</td>
<td>3</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Provincial Health</td>
<td>2</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Vancouver Coastal</td>
<td>6</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Vancouver Island</td>
<td>6</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>48</strong></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>

In addition to the New Graduate and front-line manager focus groups there was also a single session for Health Authority transition program coordinators (n=9), with representation from each. Information from nursing educational programs regarding their curricular capacity to prepare nurses for the transition to practice was also obtained via three individual interviews with faculty members from three nursing education programs. All interviews (individual or focus group) were digitally recorded.

**Data Analysis**

Data analysis began during data collection but continued following transcription of digitally recorded interviews. Both a deductive and inductive analytic approach guided the analysis. The major foci – education, support, competency, workplace environment - that guided the overall study were used to analyze the data, while still allowing for categories to emerge inductively. Similar codes or units of meaning were grouped and categorized and became the initial coding framework. As data collection proceeded, the coding framework was refined to capture the relationships and patterns between and across categories. The qualitative data analysis software NVivo was used to manage the data.
Qualitative Component Results

A description of New Graduate and nurse leader participants appear in Tables 2 and 3.

Table 2: Description New Graduate Focus Group Participants (n= 48)

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td><strong>Age</strong></td>
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<td></td>
</tr>
<tr>
<td>Under 25</td>
<td>15</td>
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<td>25-35</td>
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<tr>
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<td>6 months to 1 year</td>
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<td>10.4</td>
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<tr>
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<tr>
<td>Employed Student Nurse Program</td>
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<td>Other health related employment</td>
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<td>Permanent part-time</td>
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<td><strong>Average number of hours worked every 2 weeks</strong></td>
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<td>49-80 hours</td>
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<td><strong>Percentage of night shifts every 2 weeks</strong></td>
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</tr>
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<td>25% or less</td>
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<td>26-50%</td>
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</tr>
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Note: New Graduates who did not answer the demographic questions were listed under the category “Missing” of each demographic characteristic.
Table 3: Description of the Nurse Manager Focus Group Participants (n= 69)

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 25</td>
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<td>0</td>
</tr>
<tr>
<td>25-35</td>
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<td>4.4</td>
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<td>11 years to 20</td>
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<tr>
<td>More than 20 years</td>
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<td>Missing</td>
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<td>4.4</td>
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<tr>
<td><strong>% of Workload Addressing New Graduate Issues</strong></td>
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<td></td>
</tr>
<tr>
<td>Less than 25%</td>
<td>34</td>
<td>49.3</td>
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<tr>
<td>26% to 50%</td>
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<td>20.2</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td>4.4</td>
</tr>
</tbody>
</table>

*Note: Nurse Managers who did not answer the demographic questions were listed under the category “Missing” of each demographic characteristic.*

**Themes**

Findings are organized according to the framework guiding the study – education, support, competency/critical thinking, workplace environment. Within and across each of these framework categories was the strong theme of role stress / role ambiguity. Role ambiguity described lack of clarity, confusion, and misconceptions about expected behaviours and role responsibilities within the context of New Graduate transition programs. Role ambiguity appeared in conjunction with the new graduate’s roles but was also prevalent among the major stakeholders in the transition programs.

**Education**

The broader theme of education applied to pre-registration and transition education. Pre-registration education sub-themes included academic preparation, Employed Student Nurse Program, and career planning. Transition education sub-themes included orientation, preceptorship, and formal learning opportunities.
Pre-registration

**Academic Preparation.** New graduates and faculty were generally satisfied with the basic educational preparation for practice however Nurse Graduates and Unit Leaders identified some gaps (uncertainty of their knowledge, lapses in time, recall of content (e.g. anatomy) or comfort with practice skills). Academic preparation was also seen as evidence of one’s consolidation of the education into practice as highlighted by one Nurse Graduate who stated “Being the person who had to figure out what to do with the information I found, as opposed to just telling the primary RN. It was quite a switch” (Provincial Health Services Nurse Graduate). Unit leaders identified the loss of practical skills during practice and time away from medicine / surgery as creating a barrier to Nurse Graduate transition. Faculty commented on the disconnect between the theory provided in academia and actual practice and identified the role of academia to provide this knowledge base and the healthcare organization’s role to transition new graduates from student to registered nurse. New Graduates echoed the theory-practice gap and the resultant role stress placed on them. A Fraser Health New Graduate commented, “I think in nursing school though they teach you in the perfect world situation...it’s another shock once you get out there to see, oh this is what it’s really like.” Additional role issues and of greater impact for new graduates was being thrown into roles (due to unforeseen scheduling on their wards), such as charge nurse, for which their basic education had not prepared them. A Vancouver Coastal New Graduate shared “I was put in charge of the unit on my second set of shifts so...It was scary. And I didn’t get any training on being in charge either”. It was apparent that there were misconceptions of “responsibility” related to transition that reflected a lack of collaboration between academia and practice. There was also a sense from the New Graduate that the school was responsible for more than just entry level education, including preparation with advanced practice knowledge in leadership and management skills.

**Employed Student Nurse.** The Employed Student Nurse Program (ESN), a summer employment opportunity for third year undergraduate nursing students, was lauded by both graduates and unit leaders and yet was a source of tension for New Graduates. Both New Graduates and Unit Leaders expressed the value of the Employed Student Nurse program. An Interior Health Nurse Manager reported “I think the biggest change I’ve seen is the difference between the New Graduate who had attended...or was an employed student nurse starting out is leaps and bounds ahead of the graduate who has not taken part in that program”. This was echoed by New Graduates who had experienced the ideal of doing an Employed Student Nurse Program on the same unit as their New Graduate program and expressed the more extensive preparation they had gained as a result. New Graduates and Unit leaders felt that New Graduates who had participated in an Employed Student Nurse Program fit in easier, already had established relationships with staff, knew what to expect, and felt confident more quickly than those who either did not do an Employed Student Nurse Program or did one on a different unit. A Fraser Health New Graduate spoke “I actually found the ESN very helpful because it teaches you how to work within a team” while a Clinical Nurse Educator indicated that “They’re already understanding the culture and are often pretty integrated at being in the culture which really eases their path” (CNE – Providence Health). New Graduates with Employed Student Nurse Program experience felt there were higher expectations of them and this was corroborated by unit leaders who confirmed
that the New Graduate received fewer orientations or buddied shifts because of their familiarity with the culture and the staff. Yet, Employed Student Nurse Program New Graduates often felt that they needed the same number of shifts as their non-Employed Student Nurse Program counterparts in order to learn the New Graduate (RN) role and scope of practice, which was vastly different from the Employed Student Nurse Program role.

“Because when I was an ESN it was really easy to ask people and ask questions and people took the time to explain things to you and you’re like oh you’re a student no problem, you’re an ESN, it’s great...but then when I started just the next week I went to a totally different unit and just right away my status changed from ESN to RN and I was expected to know a lot more and people didn’t take as much time to explain things...”

(Vancouver Coastal New Graduate).

Participants felt that students who had done an Employed Student Nurse Program on certain wards were given preferential treatment with hiring and unit leaders confirmed this (final preceptorship students). New Graduates generally found the politics of hiring practices difficult to navigate. One New Graduate even mentioned that her instructor discouraged the Employed Student Nurse Program due to the intense schedule of schooling, and she regretted not doing it because of the lost seniority. One Nurse Manager also remarked that they were more likely to hire from particular schools with curricula that better prepared students. She stated, “We have nurses from different... programs... and their sense of professionalism, accountability, responsibility for practice can be significantly different” (Northern Health). New Graduates emphasized the value of the Employed Student Nurse Program in providing potential employment opportunities rather than facilitating job readiness (improving self, consolidating skills). “The fact that I worked as an ESN for two years on a certain unit and then I wasn’t hired on that unit, and I remember in my graduating class almost all the ESNs did not get jobs on the floor we ESN’d at” (Vancouver Coastal New Graduate). These statements demonstrate the many mixed messages new graduates received as undergraduate students that had created stress for them.

Career Planning. The idea of career planning was mentioned by the New Graduates as something that would add benefit to their transition experience. They described career planning as having someone explain to them early in their education the variety of different routes that their practice could take. Some New Graduates felt disillusioned as a result of being given misinformation that had cost them opportunities for advancement (e.g. not being able to specialize and then they lost out on seniority in that area). They felt a career planning guidance session would aid them in making these decisions. New Graduates who had not done the new graduate or Employed Student Nurse Program expressed similar sentiments in losing seniority due to these decisions. The New Graduate’s need for specialty was contradicted by faculty who voiced that specialties were not within their mandate and should not be added to the entry level preparation. Many managers and clinical educators expressed the sentiment that the New Graduate was not ready or needed to “pay their dues” on a regular nursing unit rather than move into a specialty as a first job. It again illustrates mixed messages which a neophyte struggles with and raises questions about the validity of placing a New Graduate into a specialty area where there are advanced knowledge and skill requirements.
Transition

**Orientation.** Inconsistencies in orientations (content, length, delivery methods, available funding) were common among New Graduates and many were surprised to hear what other new hires had encountered during their orientations (new and experienced hires in orientation together, limited supernumerary time, multiple unit orientations). Nurse Managers observed similar inconsistencies.

**Preceptorship.** New Graduates and Nurse Managers viewed buddy shifts (i.e. supernumerary, preceptorship) as very beneficial to New Graduate transition. There was remarkable variability in the number of buddy shifts from hospital to hospital and even ward to ward. Although New Graduates generally remarked that they had received enough buddy shifts, some suggested that having independent shifts or staggering them would have been helpful. New Graduates found that lack of mentorship or consistency in buddy shifts was a barrier to their transition (after the most common barrier of inconsistent work shifts). The mentor was described as a consistently assigned person who role modeled best practice, determined the New Graduate’s learning needs with them, and assisted the New Graduate in navigating the transition journey. The mentor needed to be approachable, advocating for the New Graduate and showing an interest in the New Graduate not just as a nurse but as a person. All of these qualities influenced the New Graduate’s sense of trust.

Both the New Graduate and the Nurse Manager identified lack of preceptor training as a common problem. Nurse Managers found funding to be a barrier in providing opportunities for staff to attend preceptor training. Nurse Managers also found preceptors lacking mentoring skills which negatively affected New Graduates support structure. Support in making a successful transition was optimized when the buddy or preceptor had knowledge and skills related to coaching and providing feedback. Nurse Managers expressed they often just needed to take whoever stepped up due to a lack of interest, with the assignment generally falling to an experienced staff member with a full patient assignment. Buddy shifts were often perceived as added workload, in an environment dealing with acute patients needing significant healthcare attention. Staff tried to balance management of the patient load as well as educate the new hire into the multiple routines of the unit. Staff members acknowledged their professional responsibility to grow their own. “We’re inundated with requests and of course the staff nurses get a little bit fatigued from repeatedly having to step up and be a preceptor. I mean they don’t mind doing it mostly but they don’t want to do it all the time” reported a nurse manager (Providence Health).

New Graduates often viewed preceptors as unhelpful when in fact they were attempting to break away from the new nurse and provide independence. Generational differences contributed to variations in work habits and perceptions of respect. “So you’ve got these two generations kind of bumping into one another” reported one Nurse Manager (Vancouver Island Health – Nurse Manager) with a CNE stated “Oh yes, they all arrive with their Blackberrys and i-phones (Providence Health CNE).
**Formal Learning Opportunities.** There were varied responses about the benefits of the education seminars. Many New Graduates found that education workshops were not useful and repeated skills that they had learned in school. Education that was relevant was valued; otherwise it was not helpful. Many responses focused on the need for more practical experiences (mock scenarios, clinical practice) and less classroom learning. The education sessions were useful as a social tool however, to get to know other graduates and compare stories. The New Graduate found it comforting that others were experiencing similar doubts and concerns. “The workshops were helpful just for me in the fact to know that there are other people out there feeling the exact same way you do” (Fraser Health New Graduate). Arising from this discussion was the desire for either an online or regular support group for graduates to discuss the process on a regular basis. Nurse Managers also mentioned that they felt having an internal program for New Graduates to discuss things with each other would be beneficial to the transition process.

**Support and Satisfaction**

New Graduates and nurse leaders identified support as a major theme. They expressed extremes in the nature and amount of support, but overall support weighed more to the negative. Sub-themes included: employment dissatisfaction related to hiring, vacillating support, accessing support agents, and monitoring progress.

**Employment Dissatisfaction.** New Graduates felt very disillusioned about the hiring practices they encountered after graduation. Many were working on a casual basis with some mentioning it took a long time before they got consistent hours and this negatively affected their transition. “The first three months that I graduated from work, I sat home and played on Facebook. I had no work whatsoever” (Vancouver Island Health – New Graduate). Many remarked that when they started school they were told there were jobs everywhere and then once they graduated the jobs were no longer available due to lack of funding. A Nurse Manager remarked similarly when discussing hiring practices. “So a couple of the issues we’ve been having is there is no work for them” (Vancouver Island Health).

This process was very disheartening to many New Graduates. The stress of not having consistent hours was significant for the New Graduate as they struggled to manage school loans, rent, food and other lifestyle expenses. Gaps in solidifying practice created self-doubt, feelings of inadequacy and added to the stress level of the New Graduate.

“There are just so many worries in the beginning along with being a new grad plus like thinking about money, so that is kind of stressful in the very beginning for most people starting because there are not a lot of fulltime lines to just jump into…” (Fraser Health New Graduate).

Nurse Managers expressed great frustrations with funding and behind-the-scenes politics that were unseen by New Graduates. Funding restrictions and restructuring made it difficult for Nurse Managers to hire as they wished since budgets won out over many other considerations. The Nurse Managers reported offering positions based on information provided by their organization systems but felt financially bound to offer less than what the New Graduate needed (e.g. Employed Student Nurse...
Program New Graduate needs only four shifts, the program only offers 144 hours). Nurse Managers also remarked about the difficulties that existed due to a large number of long time nurses retiring and the associated challenges in covering shifts since a sizeable percentage of the staff would be new hires (less than 5 years). Decreased hours of employment caused inadequate time to further consolidate their knowledge and skills leading to increased stress. New Graduates voiced that the manager contributed to the New Graduate role stress / confusion.

**Vacillating Support.** New Graduates seemed to either feel a lack of support, or amazing support and this support seemed to come from key people rather than from the system at large. Without consistent hours New Graduates were faced with being the new person on the unit almost daily. When the unit staff was unfamiliar with the New Graduate’s personality or competency level, New Graduates felt treated as outsiders. Alternately they experienced higher expectations from staff who assumed since they had been an Employed Student Nurse Program, their knowledge level was higher. Often new graduates expressed the stress of being left in situations where they had to cope independently.

New graduates appreciated when they received caring support that recognized how novice they were and the degree of support they needed, and moved them through their evolving practice. A Provincial Health Services New Graduate shared “I just would have liked more buddy shifts that were just concentrating on not necessarily orienting me to a unit, but just concentrating on helping me transition to being on my own...” New Graduates often attributed their success at transitioning to their ability to advocate for themselves as expressed by a VCH New Graduate. “I think advocating and just being strong and kind of standing up for yourself helped.” Nurse Managers held contrary views, often remarking that students were not ready for the position, did not have insight, and were completely overwhelmed by the process. Nurse Managers also saw many New Graduates trying to ‘do it all’ and not asking for help or self-advocating. This variance of independence by the New Graduate and the “team” or group approach valued by the Nurse Managers demonstrates role confusion and may stem from lack of agreement about how the New Graduates stages of role development should occur during transition.

**Accessing Support Agents.** There was significant confusion surrounding the clinical (unit) educator, and transition program personnel. The New Graduates indicated a need for an available, trusted educator that they could turn to, especially in the first few months of transition, but did not highlight what position this was within their work environment. In some cases, the New Graduate felt this “person” was invisible or was someone who dropped in periodically to see how the New Graduate was transitioning, without a true connection to the individual. “They said the educator would ... check-in, we could call them any time day or night and they would come and chat with us and I never saw them” voiced a VCH New Graduate. This was echoed by a Provincial Health Services New Graduate “Yes on paper they are there for you but...they’re not really”. Others felt it was significant to have a third party individual, outside of the unit, who could advocate for them if necessary as noted by a VCH New Graduate:

“I think it was really good in my experience to have that other person outside of the ward to follow up with you too, because they can kind of make sure that the process is going as
what it should be and having somebody to sit down and do those learning goals with you and kind of go through things”.

Nurse Managers noted that New Graduate Educators were good supports for the New Graduate. One Manager shared:

“They’re like mothers. We found that when our new grads had a problem they won’t necessarily come to the educator on the unit, they go to the new grad educator because they get this emotional support that the new grad educators provide for them because if they’re really having a hard time coping with whatever, then they will go talk to the new grad educators. She mothers them....being the sounding board for their anxieties (Providence Health Nurse Manager).

**Monitoring Progress.** Feedback was greatly missing from the transition process with many of the New Graduates remarking that they wished that they had had the opportunity to hear about their progress. New Graduates desired regular, early evaluation from others regarding progress, especially in the first three months, but also at certain points throughout the first year. “I always asked for feedback on my buddy shifts and got it instead of just being like ya you’re fine, go ahead” (VCH New Graduate). Nurse Managers also expressed the importance of ongoing monitoring of New Graduate progress during transition as a way to offer them guidance on strengths and gaps in their practice. There were mixed opinions on the evaluation process. Both groups preferred an informal review process that involved touching base, rather than a performance appraisal. However, Nurse Managers saw New Graduates’ inability to seek feedback as a barrier; they saw their lack of questions as not taking charge of their own review. This was in contrast to New Graduates, who put the onus on nurse managers to provide this feedback. Nurse leaders emphasized the importance of New Graduates formulating a learning plan for regular progress checking. Some New Graduates used competency skills lists or the CAPE (Competency Assessment Planning and Evaluation) tool but noted its tendency to get lost over time, due to a lack of motivation. Mixed messages of role responsibility were evident in the focus groups regarding performance review. The uncertainty of how they were transitioning lead to New Graduates to experience self-doubt, frustration and/or new stress.

**Competency and Critical Thinking**

Developing competency was a major theme with sub-themes of development expectations and factors facilitating development. Critical thinking was implicit in descriptions of competency.

**Development Expectations.** Changes in roles during the transition were cited as the most difficult. New Graduates felt that expectations or assumptions of their skills changed dramatically once their buddy shifts were done. Employed Student Nurse Program prepared New Graduates especially experienced these overwhelming expectations and felt that they were considered an equal to the team before they felt ready. Many New Graduates remarked that they were expected to suddenly have skills outside the role of Employed Student Nurse Program or even New Graduate (e.g. blood transfusion, in-charge, emergency response).
New Graduates regarded indicators of transition as “just sort of happening” and evolving over time and experienced as a gradual shift toward feeling more confident. Often this seemed to occur after about a year, or just shortly before the time that they were being interviewed. A few mentioned that they felt more confident when they realized that they were able to help the next round of Employed Student Nurses or New Graduates and that they could see the ‘scared’ look and recognize that it was a look that they themselves no longer had. Nurse Managers did not remark on this process as readily as New Graduates did, however, they also witnessed moments where New Graduates were able to advocate for themselves and others and saw this as being an indicator of their transition. However Nurse Managers also remarked on people being ‘new’ even years into their practice.

**Factors Towards Development.** New Graduates and Nurse Managers recognized the main facilitator of transition as consistent work hours. New Graduates believed they would have had an easier transition if they had participated in the Employed Student Nurse Program, done buddy shifts, and been trained on one unit where they had consistent hours. This of course was an ideal, but even those New Graduates who were unable to follow that path found that full time hours made it easier to have continuity in their practice and skills building. New Graduates who remarked that their transition was rocky often mentioned working casual on different wards where every shift was different. “Experience and having supports there while you are experiencing, in the middle of things, to ask questions and help you through it. You can read about something over and over, but until you do it, it is not quite the same.” (Providence Health – New Graduate). Education opportunities were valued by New Graduates as ways to improve their skills. Sometimes they were not offered at times that New Graduates were able to partake in them but “Because you’re not going to know everything all the time, but knowing how to find stuff out I think is very important.” (Vancouver Coastal New Graduate).

**Workplace Environment**

Overall the talk around the culture and work environment was positive. New Graduates felt mostly supported in their roles and talked favourably about the environment. The New Graduate valued a consistent setting where they were comfortable with their assignments and regularly connected with the unit and the people there. The New Graduate described supportive environments as promoting and encouraging further learning, and confidence building. In addition, younger nurses who were not so distant from the transition experience were noted to be helpful and supportive of the New Graduates. New Graduate valued social network support not just limited to nursing but involving people like housekeeping, unit clerks and doctors. The personality of mentors played a huge role in fostering a strong work environment for New Graduates.

There were a few comments about fearing for the safety of patients, although Nurse Managers remarked more heavily on this as they saw that the culture of the New Graduate made them less likely to ask questions and to have an understanding of the continuity of care a patient needed. Nurse Managers saw many New Graduates not taking breaks and “trying to do it all” rather than delegate, and considered this as a problem for the overall culture of the workplace. New Graduates remarked on this as well, often feeling alone on the unit and trying to coordinate many things without support. This
appeared to be a communication breakdown between the two parties. New Graduates expressed feeling confident once they could talk to doctors, but that this was outside of their scope of practice as a student, but experienced fear initially in doing this as a licensed nurse.

New Graduates also voiced examples of interpersonal conflict and how difficult it was for them. Attempting to navigate through workplace politics, personally enduring horizontal violence from peers and support agents demoralized their confidence and challenged their career choice.

**Role Ambiguity**

An underlying theme of role ambiguity / confusion and or misconceptions was pervasive from the perspective of all stakeholders involved in the transition of the new graduate. It was reflected in descriptions of role expectations, responsibilities of those involved in transition programs, and or system wide discrepancies. This theme suggests conflict and challenges that requires further examination to formulate best practices.

**Quantitative Component - Methodology**

The purpose of the quantitative component was to identify the relationships between New Graduate transition program components and New Graduates’ transition experiences.

**Questions**

The overall question guiding the quantitative study was what is the relationship between participation in a New Graduate Transition Program and New Graduate’s transition experience? If a transition program improves the experience, what educational, support, competency/critical-thinking, and workplace environment components are associated with this improvement?

The following research questions guided study of the relationships between educational components of transition programs and transition:

1. What is the relationship between the helpfulness of different education methods of delivery and transition experience?
2. What is the relationship between the timing (during orientation period or throughout entire first year of transition) of New Graduate specific education and New Graduates transition experience?
3. After taking into account when the New Graduates received their New Graduate specific education, is there a relationship between their total transition scores and their ability to access support when needed?
The following research questions guided study of the relationships between transition scores and support associated with orientation (length and % of preceptored shifts) and transition program components (participation in a transition program or not, helpfulness of people supports associated with transition):

1. What is the relationship between length of orientation and transition?
2. What is the relationship between percentage of New Graduate shifts that are preceptored during the orientation and transition?
3. Is there a difference in transition between new graduates participating in a formal New Graduate transition program and those that did not?
4. What are the most helpful perceived supports for New Graduates who participated in a New Graduate transition program? Which people supports are related to transition?
5. Does participation in a formal transition program account for a significant amount of variability in the total transition score over and above that accounted for by length of orientation?

The following research questions guided study of competency related factors, specifically employment status and number of hours worked, and their relationship to transition? It was hypothesized that full-time employment and more than 49 hours worked over a two week period would increase competency of New Graduates during transition.

1. Is there a relationship between employment status and number of hours worked in a 2 week period and the New Graduate transition experience?
2. After controlling for length of employment of New Graduates, is there a relationship between transition program participation and New Graduate transition experience?

The following research questions guided study of the relationships between transition scores and workplace environment conceptualized as ability to access support when needed and perceptions of bullying/harassment. To evaluate the impact of a formal New Graduate transition program on bullying/harassment this investigation examined the ability of New Graduates to access support during times when they felt they needed it most.

1. When do BC New Graduates feel the greatest need for support during their transition to practice? Are they able to access support when they feel the greatest need?
2. What is the prevalence of self-reported bullying among New Graduates?
3. After taking into account whether or not the New Graduates were bullied/harassed in the workplace, is there a relationship between their transition experience and how often they accessed support when they felt their greatest need for support?
4. For the New Graduates, what is the relationship between the total/subscale transition score and the predictors “transition program participation”, “bullying/harassment” and “ability to access support when most needed”?
Design

The quantitative component of the study included an online survey of new graduates within a year of starting employment.

Sample

Following ethics approval from two BC post-secondary institutions (University) Ethics Review Boards and seven BC Health Authorities, sample recruitment began. The project’s working-steering committee consisted of representatives from each Health Authority in BC, and they assisted in the identification of BC New Graduates from the 2010 graduating classes (n=1,008) and were working in acute care. Recruitment of the sample consisted of mechanisms internal to each Health Authority and included a letter of information, invitation to participate, and consent process sent via email (Appendix F). A link to an online survey was included within the letter of information, and participant consent was implied via survey completion. Each eligible New Graduate was sent at least one follow-up email reminder.

Data Collection

The quantitative component of the project involved administration of an online survey (Appendix F2) that consisted of five sections: demographics, orientation to the employer/nursing unit, general transition, specific New Graduate transition program, and the Casey-Fink Graduate Nurse Experience Survey (Casey, Fink, Krugman, & Propst, 2004) (Appendix F3). Prior to administration, the survey was pilot tested with new graduates for clarity of instructions and items, readability, and time to completion with minor changes based on their feedback. Demographics obtained information such as age, gender, employment/work status, and previous health experience. Questions related to the orientation stage asked if New Graduates had received an orientation, its length (none, < 2 wks, between 2-4 wks, > 4 wks) and the percentage of preceptored shifts it involved (none, ≤25%, 26-50%, 51-75%, > 75%). General transition questions asked new graduates when they experienced the greatest need for support, during their time of greatest need how often they were able to access support; and if they had experienced any bullying and/or harassment in the workplace as a New Graduate. Specific transition program questions asked about length, the helpfulness of educational resources (including written materials, classroom/theory, simulation/lab, hands-on/bedside learning, inservices/workshops, and website/online materials); and the helpfulness of people resources (preceptors, mentors, transition program coordinators, clinical educators, staff, and peers). The educational resources were selected based on input from transition coordinators from the seven Health Authorities represented in this study, who identified specifics of the New Graduate education and people supports they included in their transition programs. Other information provided by Health Authority transition program coordinators revealed that three Health Authorities made specific reference to peer-support opportunities where new graduates have a chance to share their transition experience with each other. Another interesting difference in programs is that four of the health authorities deliver New Graduate specific workshops throughout the first year of transition, while the remaining three deliver New Graduate specific workshops only during the initial orientation period.
The Casey-Fink survey instrument was utilized to quantify a New Graduate’s transition experience and taps into New Graduates' professional comfort, expectations, and supports (Goode et al., 2009). This tool, originally developed in 1999 and revised in 2002, has been used to survey over 250 hospital nurses in the Denver metropolitan area, and has been further validated with over 1,000 graduate nurse residents participating in the University Health System Consortium/AACN Post Baccalaureate Residency program (Fink, 2004). It is a summative scale, consisting of 24 questions and uses a 4-point response scale (1=strongly disagree; 2= disagree; 3= agree; 4= strongly agree), with total scores ranging from 24 to 96. The higher this score, the better the overall transition of the New Graduates. Initial psychometrics included principal Axis Factoring with Varimax rotation analysis that produced a 5-factor solution accounting for 46% of the variation in total scores. The factors/subscales include: (1) organizing/prioritizing (.79), (2) communication/leadership (.75), (3) support (.90), (4) stress (.71) and (5) professional satisfaction (.83). Reliability estimates for the factors ranged from .71 to .90 (Fink). The survey took approximately 15 minutes to complete.

**Data Analysis**

The results of the Casey-Fink portion of the online survey provided each New Graduate with a ‘transition score’ that was used in the data analysis. For each nurse, the total transition score was derived by summing the scores to all 24 questions of the Casey-Fink survey. Five items (Q 5, 8, 16, 17, 24) were reverse coded. The higher this score, the better the overall transition of the New Graduate. Missing responses for individual questions were replaced with the median value for that item computed from responses from the other nurses. Subscale transition scores were obtained similarly by summing relevant items for each dimension following reverse coding of relevant items and replacement of missing values with median scores.

**Quantitative Component – Results**

**A TRANSITION PROGRAM MAKES A DIFFERENCE**

A description of the New Graduate survey respondents appears in Appendix F4. Each Health Authority was represented in the sample of respondents, with rates ranging from as low as 7% to as high as 57%, with an overall response rate of 26%.

**Table 4: New Graduate Response Rates for Survey Study**

<table>
<thead>
<tr>
<th>Health Authority</th>
<th># of New Graduates receiving survey invite</th>
<th># of New Graduates who participated</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraser</td>
<td>307</td>
<td>23</td>
<td>7%</td>
</tr>
<tr>
<td>Interior</td>
<td>152</td>
<td>72</td>
<td>47%</td>
</tr>
<tr>
<td>Northern</td>
<td>122</td>
<td>39</td>
<td>32%</td>
</tr>
<tr>
<td>Providence</td>
<td>90</td>
<td>24</td>
<td>27%</td>
</tr>
<tr>
<td>Provincial</td>
<td>21</td>
<td>12</td>
<td>57%</td>
</tr>
<tr>
<td>Vancouver-Coastal</td>
<td>124</td>
<td>41</td>
<td>21%</td>
</tr>
<tr>
<td>Vancouver Island</td>
<td>192</td>
<td>46</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1008</strong></td>
<td><strong>257</strong></td>
<td><strong>26%</strong></td>
</tr>
</tbody>
</table>
Does participation in a New Graduate Transition Program improve the new graduate’s transition experience to the workplace?

Fifty-nine percent, or 144, of survey respondents participated in their Health Authorities’ New Graduate transition program. Overall, statistical analysis demonstrated that New Graduates who took part in their organization’s formal New Graduate transition program differed in their transition experience from those New Graduates who were not able to take part in such a program (Appendix G). An independent two-sample t-test revealed that on average, the New Graduates who participated in a formal New Graduate transition program had significantly higher total transition scores than the nurses who did not ($t = 4.907, \text{df} = 243; P\text{-value} < 0.0001$). The mean value of the total transition score for the nurses who participated in a formal New Graduate transition program was 5.27 points higher (95% CI: 3.16 – 7.39) than that for the nurses who did not. Similarly, having a formal New Graduate transition program was associated with higher organizing/prioritizing scores ($t = 2.249, \text{df} = 243; P\text{-value} = 0.02541$), communication/leadership scores ($t = 3.722, \text{df} = 243; P\text{-value} = 0.00025$), support scores ($t = 5.002, \text{df} = 243; P\text{-value} < 0.0001$) and professional satisfaction scores ($t = 4.058, \text{df} = 243; P\text{-value} < 0.0001$).

Figure 1: Side-by-side boxplots of the total and sub-scale transition scores for the nurses who were provided by their organization with a formal New Graduate transition program and for those who were not provided with such a program.

The following summarizes the quantitative portion of the project related to the four themes of Education (from pre-registration to transition), Support/Satisfaction, Competency and Critical Thinking, and Workplace Environment.
**Education (pre-registration to transition)**

*What is the relationship between participation in an Employed Student Nurse Program (pre-registration) and New Graduate transition scores?*

Of the 257 New Graduates who took part in the online survey, 146 had participated in BC’s Employed Student Nurse program (57%). Based on the outcome of an independent two-sample t-test, there was no statistically significant difference in the mean values of the total transition scores between the nurses who were previously employed as a student nurse and those who did not hold this type of employment ($t = 0.8195$, $df = 243$; $P$-value = 0.413). Similarly, on average, there was no statistically significant difference between the nurses who participated in BC’s Employed Student Nurse Program and those who did not with respect to their organizing/prioritizing scores ($t = -0.3564$, $df = 243$; $P$-value = 0.7219), communication/leadership scores ($t = 0.4271$, $df = 243$; $P$-value = 0.6697), support scores ($t = -1.5863$, $df = 243$; $P$-value = 0.114), stress scores ($t = -1.4279$, $df = 243$; $P$-value = 0.1546) and professional satisfaction scores ($t = 0.1948$, $df = 243$; $P$-value = 0.8457).

*What is the relationship between the helpfulness of different education methods of delivery and New Graduate transition scores?*

Education is a key component of most New Graduate transition programs and this was no exception within BC transition programs. These programs included a combination of written materials, classroom learning, simulation lab, hands-on/bedside learning, in-services/workshops, and online learning materials. Not all choices were applicable to each New Graduate due to the variation amongst Health Authority transition programs in BC with respect to education delivery methods.

Table 5 presents the percentages of the 144 nurses who found various types of educational materials very helpful, moderately helpful/helpful, not very helpful or not applicable during their transition process. New Graduates reported hands-on/bedside learning (58%) and in-services/workshops (30%) as being the most helpful during transition. A simple linear regression demonstrated a significant positive linear relationship between the total transition score and the helpfulness ranking attributed to in-services/workshops ($t = 1.978$, $df = 142$; $P$-value = 0.0499). The more helpful New Graduates found inservices/workshops to be, the higher the New Graduates’ total transition scores (See Figure 2). Also, significant positive linear relationships were found via simple linear regression analyses between the support sub-scale score and the helpfulness ranking attributed to written materials ($t = 2.412$, $df = 142$; $P$-value = 0.0171), simulation/lab ($t = 2.070$, $df = 142$; $P$-value = 0.0402), inservices/workshops ($t = 3.524$, $df = 142$; $P$-value = 0.00571) and website/online ($t = 2.407$, $df = 142$; $P$-value = 0.0174); the higher the helpfulness ranking score for each educational opportunity the higher their support sub-scale score. Lastly, the data provided evidence that the higher the helpfulness ranking attributed by nurses to inservices/workshops, the higher their professional satisfaction sub-scale score ($t = 2.640$, $df = 142$, $P$-value = 0.00921).

Table 5: Percentages of nurses (n=144) who found various types of educational materials very helpful, moderately helpful, helpful, not very helpful or not applicable during their transition process.
Among nurses who participated in a formal New Graduate transition program, is there a difference in the mean value of the total or subscale transition score between nurses who received their New Graduate specific education throughout the first year of transition and those who received it during the orientation period? After taking into account when the New Graduates received their New Graduate specific education, is there a relationship between their total transition score and their ability to access support when needed?

Transition program coordinators from the BC Health Authorities reported delivery of their New Graduate specific workshop/education opportunities in one of two ways. Three Health Authorities typically delivered all of their New Graduate specific education/workshops within the unit orientation period only, while the remaining four Health Authorities offered their New Graduate specific workshop/education opportunities beyond the typical orientation period. This model typically involved a New Graduate workshop early in the orientation period, and an additional workshop(s) later in the transition process.

An independent two-sample t-test indicated that there was no significant difference in New Graduates total transition scores whether they had workshop/educational opportunities during the unit orientation period only or received them throughout the first year of transition (t = -0.1237, df = 142; P-value = 0.9017). Similar testing established that having workshop/educational opportunities during the unit orientation period rather than throughout the first year of transition had no significant impact on the organizing/prioritizing scores (t = -2.255, df = 142; P-value = 0.7993), communication/leadership scores (t = -1.233, df = 142; P-value = 0.2196), support scores (t = 0.336, df = 109.667; P-value = 0.7372), stress scores (t = 0.513, df = 70.398; P-value = 0.6096) and professional satisfaction scores (t = 0.507, df = 81.725; P-value = 0.6137). For nurses who received their New Graduate specific workshops beyond the typical orientation period, there was a significant positive relationship between ability to access support when needed and the total transition score that was not found in New Graduates who received education during orientation only. For New Graduates who received education beyond orientation, each 1-unit increase in their ability to access support when needed was found to be associated with an increase of 6.14 points in the mean value of the total transition score (95% CI: 3.93 to 8.35). (See Figure 2)
Figure 2: Relationship between the New Graduates’ total transition score and their ability to access support when needed, conditional on when the nurses received their New Graduate specific education – during the orientation period or during the first year of transition.

Support/Satisfaction

Support was studied in conjunction with orientation and transition program components of the New Graduate transition programs. Orientation involved ‘supernumerary time,’ or time for a New Graduate to become immersed in their new role without workload pressures. Both the length of orientation and the amount of preceptored shifts were viewed as forms of support associated with this stage. Beyond orientation, the transition program consisted of people supports, including mentors, transition program coordinators, clinical unit educators, unit staff, and New Graduate peers.

For nurses who received an orientation from their employer, what is the relationship between their total transition score and their length of orientation?

Table 6 indicates that 176 New Graduates were provided with a unit orientation. The online survey asked participants about the length of their unit orientation, and responses from participants allowed for the creation of three categories to identify length: 2 weeks or less (n= 80); more than 2 weeks but less than 4 weeks (n=49); 4 weeks or more (n=48) (see Table 6 below).

Table 6: Orientation information for the 176 New Graduates who responded to the question “Were you provided with an orientation specific to your unit?”
<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>167</td>
<td>94.89</td>
</tr>
<tr>
<td>From Previous Employment</td>
<td>7</td>
<td>3.98</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>1.14</td>
</tr>
<tr>
<td>Length of Orientation (Weeks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>78</td>
<td>44.83</td>
</tr>
<tr>
<td>2 but &lt; 4</td>
<td>48</td>
<td>27.59</td>
</tr>
<tr>
<td>&gt; 4</td>
<td>48</td>
<td>27.59</td>
</tr>
<tr>
<td>% Preceptored Shifts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>18</td>
<td>10.34</td>
</tr>
<tr>
<td>25</td>
<td>19</td>
<td>10.92</td>
</tr>
<tr>
<td>26-50</td>
<td>21</td>
<td>12.07</td>
</tr>
<tr>
<td>51-75</td>
<td>25</td>
<td>14.37</td>
</tr>
<tr>
<td>&gt;75</td>
<td>91</td>
<td>52.30</td>
</tr>
</tbody>
</table>

Note: Overall, 174 nurses were considered to have had a unit-specific orientation – 167 nurses who received an orientation from their current employer plus 7 nurses who received an orientation from their previous employer. The frequencies and percentages reported for the variables length of orientation and % preceptored shifts apply only to these 174 nurses.

A one-way analysis of variance applied to the data from the 174 nurses who received a unit orientation demonstrated that length of orientation had a significant effect on the new graduate nurses’ total transition scores (F = 8.5853, df = 2, 171; P-value = 0.0003). Tukey’s post-hoc comparisons indicated that, on average, the nurses who attended an orientation of 4 weeks or more had significantly higher total transition scores than nurses who attended an orientation of either 2 weeks or less or more than 2 weeks but less than 4. Specifically, the total transition score of the nurses who attended an orientation lasting 4 weeks or more was on average 6.21 points higher than that of the nurses who attended an orientation of 2 weeks or less (95% CI: 2.63 to 9.80) and 4.77 points higher than that of the nurses who attended an orientation lasting more than 2 weeks, but less than 4 (95% CI: 0.78 to 8.76). The nurses whose orientation lasted 4 weeks or more significantly outperformed the other nurses in terms of the communication/leadership sub-scale score (F = 4.2651, df = 2, 171; P-value = 0.0156), the support sub-scale score (F = 11.6460, df = 2, 171; P-value < 0.0001) and the professional satisfaction sub-scale score (F = 5.4800, df = 2, 171; P-value = 0.0049).
Does the percentage of New Graduate shifts that are preceptored during the orientation period effect transition?

Table 7 displays summary statistics describing the distribution of the total transition scores for nurses (n=174) who received a unit orientation according to percent of preceptored shifts. A series of one-way analyses of variance established that the percentage of New Graduate shifts that were preceptored during the orientation period did not have a statistically significant effect on the total transition score ($F = 1.057$, df = 3, 170; P-value=0.3689) and on each of the subscale transition scores: priority setting/organizing ($F = 0.8141$, df = 3, 170; P-value = 0.4877), communication/leadership ($F = 0.4136$, df = 3, 170; P-value = 0.7434), support ($F = 1.562$, df = 3, 170; P-value = 0.2004), stress ($F = 1.009$, df = 3, 170; P-value = 0.3900) and professional satisfaction ($F = 0.5045$, df = 3, 170; P-value = 0.6797).

Table 7: Summary statistics describing the distribution of total transition scores in the groups of nurses defined according to the percentage of their preceptored shifts during their specific unit orientation.

<table>
<thead>
<tr>
<th>Percent Preceptored Shifts</th>
<th>N</th>
<th>%</th>
<th>Mean Transition Score</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>18</td>
<td>10.3</td>
<td>69.39</td>
<td>9.75</td>
</tr>
<tr>
<td>25% or less</td>
<td>19</td>
<td>10.9</td>
<td>72.79</td>
<td>9.50</td>
</tr>
<tr>
<td>26-75%</td>
<td>46</td>
<td>26.4</td>
<td>71.76</td>
<td>8.59</td>
</tr>
<tr>
<td>More than 75%</td>
<td>91</td>
<td>52.3</td>
<td>73.15</td>
<td>8.24</td>
</tr>
</tbody>
</table>

What is the relationship between the total/subscale transition score and the helpfulness ranking of support people?

The survey asked New Graduates to rank the different types of ‘people supports’, including mentors, transition program coordinators, clinical educators, unit staff, and New Graduate peers in terms of their helpfulness during transition. Table 8 gives the percentages of nurses (n=144) who found various types of ‘people supports’ very helpful, helpful/moderately helpful, not very helpful or not applicable during their transition process. For nurses attending a formal transition program, significant positive linear relationships were found between the total transition score and the helpfulness ranking attributed to the preceptor, unit staff, and mentor. In particular, a 1-unit increase in the value of the helpfulness ranking attributed to each of these people resources was found to be associated with the following increases in the expected values of the total transition scores: 1.14 points (95% CI: 0.09 to 2.20) for the preceptor resource, 3.99 points (95% CI: 1.82 to 6.17) for the unit staff resource and 1.10 points (95% CI: 0.10 to 2.09) for the mentor resource. Only the support sub-scale score had a significant positive linear relationship with helpfulness ranking attributed to the mentor and unit staff. Each 1-unit increase in the value of the helpfulness ranking attributed to the mentor and unit staff were found to be associated with an increase of 0.87 points (95% CI: 0.41 to 1.32) and an increase of 2.87 points (95% CI: 1.82 to 3.91), respectively in the expected value of the support score. (See Table 8.)
Table 8: Percentages of nurses (n=144) who found various types of support people very helpful, moderately helpful to helpful, not very helpful, or not applicable during their transition process.

<table>
<thead>
<tr>
<th>Types of Support People</th>
<th>Very helpful</th>
<th>Helpful/ Moderately helpful</th>
<th>Not very helpful</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preceptor</td>
<td>60.8</td>
<td>16.1</td>
<td>1.4</td>
<td>21.7</td>
</tr>
<tr>
<td>Mentor</td>
<td>43.8</td>
<td>21.5</td>
<td>0.7</td>
<td>34.0</td>
</tr>
<tr>
<td>Transition Program Coordinator</td>
<td>18.8</td>
<td>50.7</td>
<td>16.7</td>
<td>13.9</td>
</tr>
<tr>
<td>Clinical Educator</td>
<td>27.8</td>
<td>52.1</td>
<td>13.2</td>
<td>6.9</td>
</tr>
<tr>
<td>Other New Graduates/Peers</td>
<td>38.2</td>
<td>53.5</td>
<td>2.1</td>
<td>6.2</td>
</tr>
<tr>
<td>Unit Staff</td>
<td>44.4</td>
<td>50.7</td>
<td>4.2</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Competency and critical thinking

*How do the employment status and the average number of hours worked in a 2 week period affect the total transition score of New Graduates?*

The Casey-Fink survey sub-scale ‘organizing/prioritizing’ is related to the competency of the NG nurse. Thus to address competency and critical thinking of New Graduates in this particular investigation, various data collected were analyzed in relation to NG organizing/prioritizing sub-scale scores. A multiple linear regression analysis with no interaction established that New Graduates who worked an average of 49 hours or more in a 2 week period tended to have higher organizing/prioritizing sub-scale scores than nurses who worked 48 hours or less during that period when taking into account employment status. Indeed, among New Graduates with the same employment status, nurses who worked 49 hours or more in a 2 week period had a mean total transition score which was 3.62 points higher than that of the nurses who worked 48 hours or less during that period (95%: 1.05 to 6.20).

While the priority setting/organizing and communication/leadership subscale scores were found to be significantly linearly related to the average number of hours worked in the past 2 weeks, they were not significantly related to employment status.

New Graduates who participated in a formal transition program had significantly higher organizing/prioritizing sub-scale scores (P-value=0.0254) than New Graduates who did not. Further, organizing/prioritizing sub-scale scores were significantly linearly related to the average number of hours worked in the past 2 weeks. Specifically, New Graduates who worked an average of 49 hours or more in a 2 week period had higher organizing/prioritizing sub-scale scores than nurses who worked 48 hours or less during that period (95%: 0.28 to 1.60). Simple linear regression analysis with no interaction showed that average number of hours worked in a 2 week period was a significant predictor of the total transition score. After adjustment for employment status new graduates who worked 49 hours or more in a 2 week period had a mean total transition score of 3.62 points higher than nurses who worked 48 hours or less during that period (95%: 1.05 to 6.20). The priority setting/organizing and
communication/leadership scores were found to be significantly linearly related to the average number of hours worked in the past 2 weeks but not to the employment status.

**After controlling for length of employment of New Graduates, is there a relationship between transition program participation and New Graduate transition experience?**

Length of employment as a newly graduated nurse was not a statistically significant moderator \( (F = 0.0893, \text{df} = 2, 239; P\text{-value} = 0.9146) \) of the relationship between the total transition scores of New Graduates who participated in a formal New Graduate transition program and those who did not. Participation in a formal New Graduate transition program had the same effect on the total transition score whether new graduates were employed less than 6 months, for 6 months to 1 year, or for more than 1 year – namely, nurses who participated in a formal New Graduate transition program tended to have higher total transition scores than those who did not after taking into account the length of employment. Length of employment similarly was not a significant moderator of the relationship between non-participation and participation in a formal New Graduate transition program for all of the sub-scale transition scores: priority setting/organization \( (F = 0.0792, \text{df} = 2, 239; P\text{-value} = 0.9238) \), communication/leadership \( (F = 0.1155, \text{df} = 2, 239; P\text{-value} = 0.8909) \), support \( (F = 0.532, \text{df} = 2, 239; P\text{-value} = 0.5881) \), stress \( (F = 0.5957, \text{df} = 2, 239; P\text{-value} = 0.5520) \) and professional satisfaction \( (F = 0.4498, \text{df} = 2, 239; P\text{-value} = 0.6383) \).

**Workplace Environment**

Sixty-two percent of New Graduates indicated that their greatest need for support during the transition process was during the 1 – 3 month time frame. Further, 71% were able to access support when needed most or all of the time. Table 9 illustrates New Graduate’s ability to access support relative to whether they reported being bullied/harassed in the workplace.

**Table 9:** “Ability to access support when needed” and “bullying/harassment”.

<table>
<thead>
<tr>
<th>Ability to access support when needed</th>
<th>Where you bullied/harassed in the workplace as a New Graduate?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No   %   Yes   %</td>
</tr>
<tr>
<td>None of the time</td>
<td>1    0.6  3    3.2</td>
</tr>
<tr>
<td>Some of the time</td>
<td>30   20.3 38   40.4</td>
</tr>
<tr>
<td>Most of the time</td>
<td>76   51.4 40   42.6</td>
</tr>
<tr>
<td>All of the time</td>
<td>41   27.7 13   13.8</td>
</tr>
<tr>
<td><strong>Column Total</strong></td>
<td><strong>148</strong> 100  <strong>94</strong> 100</td>
</tr>
</tbody>
</table>
What is the prevalence of self-reported bullying among New Graduates?

Of the 242 nurses who provided information on their participation in a formal New Graduate transition program as well as on their bullying/harassment status and their ability to access support when most needed, thirty-nine percent claimed they experienced bullying/harassment. The prevalence of bullying was the same among the 142 nurses who attended a formal transition program (39%) and 100 nurses who did not (39%). Among the 142 nurses who attended a formal New Graduate transition program, 69% of the bullied nurses were able to access support when needed most or all of the time compared to 90% for the non-bullied nurses. In contrast, among nurses who did not attend a formal transition program, 38% of the bullied/harassed nurses were able to access support when needed most or all of the time versus 64% for the non-bullied nurses. (See Table 10)

Table 10: Three-way table of observed frequencies and percentages describing the relationships among the variables “participation in a formal New Graduate transition program”, “bullying/harassment in the workplace” and “ability to access support when needed”.

<table>
<thead>
<tr>
<th>Ability To Access Support When Needed</th>
<th>Participation in a Formal New Graduate Transition Program</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Bullying/Harassment</td>
<td>N %</td>
<td>N %</td>
</tr>
<tr>
<td>None of the time</td>
<td>2 3.6</td>
<td>0 0</td>
</tr>
<tr>
<td>Some of the time</td>
<td>15 27.3</td>
<td>9 10.3</td>
</tr>
<tr>
<td>Most of the time</td>
<td>29 52.7</td>
<td>45 51.7</td>
</tr>
<tr>
<td>All of the time</td>
<td>9 16.4</td>
<td>33 37.9</td>
</tr>
<tr>
<td>Total</td>
<td>55 100</td>
<td>87 100</td>
</tr>
</tbody>
</table>

Overall, 242 nurses provided information on their participation in a formal New Graduate transition program, their bullying/harassment status and their greatest need for support. Among the nurses who attended a formal New Graduate transition program, the percentage of nurses who indicated that their greatest need for support occurred between 1 and 3 months of practice as a newly graduated nurse was comparable between bullied and non-bullied nurses: 60% for bullied nurses versus 63.2% for non-bullied nurses. (See Table 11)
Table 11: Three-way table of observed frequencies and percentages describing the relationships among the variables “participation in a formal New Graduate transition program”, “bullying/harassment in the workplace” and “greatest need for support” for the 241 nurses who provided information on their ability to receive support when most needed.

<table>
<thead>
<tr>
<th>Greatest Need for Support</th>
<th>Participation in a Formal New Graduate Transition Program</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Within the first month of practice</td>
<td>13</td>
<td>23.6</td>
<td>23</td>
<td>26.4</td>
<td>6</td>
<td>15.4</td>
<td>13</td>
<td>21.7</td>
<td></td>
</tr>
<tr>
<td>1 - 3 months</td>
<td>33</td>
<td>60.0</td>
<td>55</td>
<td>63.2</td>
<td>22</td>
<td>56.4</td>
<td>38</td>
<td>63.3</td>
<td></td>
</tr>
<tr>
<td>4 - 6 months</td>
<td>8</td>
<td>14.5</td>
<td>8</td>
<td>9.2</td>
<td>7</td>
<td>17.9</td>
<td>8</td>
<td>13.3</td>
<td></td>
</tr>
<tr>
<td>7 - 9 months</td>
<td>1</td>
<td>1.8</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7.7</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>10 - 12 months</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.1</td>
<td>1</td>
<td>2.6</td>
<td>1</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Column Total</td>
<td>55</td>
<td>100%</td>
<td>87</td>
<td>100%</td>
<td>39</td>
<td>100%</td>
<td>60</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Participation in a transition program was associated with higher total transition scores after taking into account bullying/harassment in the workplace and ability to access support when needed (t = 2.991, df = 239; P-value = 0.00307). Thus New Graduates who experienced bullying/harassment had better transition scores if they participated in a formal transition program compared to bullied New Graduates who did not. The mean value of the total transition score was 2.96 points higher for nurses who participated in a transition program compared to those who did not (95% CI: 1.01 to 4.90), all else being equal.

After controlling for participation in a formal New Graduate transition program, bullying/harassment in the workplace was found to be a statistically significant moderator of the relationship between the New Graduates’ ability to access support when needed and their total transition scores (t = -2.527, df = 239; P-value = 0.01217). Higher values in total transition scores were associated with a greater ability to access support when needed for both the nurses who were bullied/harassed and those who were not. This positive relationship was weaker among nurses who were bullied/harassed, with each one-unit increase in their ability to access support when needed associated with a 2.90 point increase in the mean value of the total transition score (95% CI: 0.77 to 5.04) compared to a 6.35 increase in scores of new nurses who were not bullied/harassed (95% CI: 4.61 to 8.09) when controlling for transition program participation. (Figure 3 for more details.). Transition program participation, bullying/harassment and ability to access support when most needed accounted for 31.79% of the variability in the total transition scores.

Statistically significant or marginally statistically significant moderating effects of bullying/harassment were found on New Graduate’s ability to access support when needed and their organizing/prioritizing sub-scale score (t = -3.717, df = 239; P-value = 0.00025), stress sub-scale score (t = -2.050, df = 239; P-value = 0.0414) and professional satisfaction sub-scale score (t = -1.893, df = 239; P-value = 0.0596) after controlling for participation in a formal New Graduate transition program.
Figure 3: Effect of New Graduate’s ability to access support when most needed on the total transition score, conditional on bullying/harassment status.
PHASE 3 – THE TOOLKIT

The goal of this project was to produce a ‘Toolkit’ of best practices in the transition of New Graduates. However, the complexity of transition makes it a challenging area to study, as reflected in the limited best practices emerging from Phase 1. The most compelling findings from the Phase 1 literature review, and Phase 2 mixed methods study related to the macro-level constituent components of formal transition programs rather than to micro-level components of these programs. Thus the focus of this toolkit is on the macro level components of formal transition programs that result in the best possible transition experience. In developing the toolkit, methodological triangulation (Creswell and Plano Clark, 2006) was used to converge multiple sources of data. The use of triangulation is comprehensive but also has been well established to enhance validity; it is a strategy to assist with data confirmation, the process of examining and comparing data collected from multiple sources and looking at the extent to which findings converge (Casey and Murphy, 2009). There were two main components to this triangulation process, data scrutiny and data comparison. The data scrutiny component involved examining each data set distinctly, determining key findings, and then arranging the data to enable comparison. The data comparison component involved the formation of a table of findings to assist in the comparison of themes and variables.

Table 12 (Appendix G) was organized according to the four main themes of the project: Education (pre-registration, practice), Support/Satisfaction, Competency and Critical Thinking, and Workplace Environment and the data collection source (literature review, quantitative, qualitative). Findings from each data source were summarized and then analyzed to determine what was common across the three data sources. Recommendations were created that recognized the considerable variation in strength of evidence found within the literature review data. Information provided in the ‘strongly recommended’ section met the criteria if it was a key finding in at least two of the literature review, qualitative data, or quantitative data sources. Further, a literature review data source had to be at an evidence level of six or higher to contribute to a strong recommendation. Information in the ‘recommended’ column refers to recommendations where one of the sources of data was the literature review, and the evidence level was less than six. The full data analysis table is located in Appendix G.

Recommendations

Each component section consists of recommendations for the tool-kit, the evidence to support the recommendations, barriers to implementation of the recommendations, and strategies to address the barriers. Although the discussion addresses program components separately to highlight their specific contributions to New Graduate transition experiences, there is considerable overlap among the components of education, support, competency, and workplace environment throughout the transition experience, thus some findings are discussed in relation to more than one theme.
### Education (Pre-registration to transition)

<table>
<thead>
<tr>
<th>Recommendations for Toolkit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRONGLY RECOMMENDED:</strong></td>
</tr>
<tr>
<td>- Focus on hands-on, practical skills in transition program education such as bedside learning opportunities and in-services/workshops</td>
</tr>
<tr>
<td>- Limit formal classroom type learning opportunities</td>
</tr>
<tr>
<td><strong>RECOMMENDED:</strong></td>
</tr>
<tr>
<td>- Encourage undergraduate programs to increase the opportunities for practical skill focus</td>
</tr>
</tbody>
</table>

**Strongly Recommended Best Practice**

Subjective information revealed in both the literature review and qualitative portion of phase 2 clearly indicated New Graduates preferred practical skill practice opportunities, and did not favour formal classroom type learning during their transition program. The quantitative portion of phase 2 further emphasized the importance of practical skill practice opportunities via the positive linear relationship between total transition score and how ‘helpful’ in-services/workshops were ranked by New Graduates. This same positive linear relationship was not observed in relation to non-practical education opportunities delivered in BC such as ‘written materials’ and ‘classroom/theory.’ Although there were some similarities in New Graduate education content, best practices related to educational content and length/amount of education cannot be drawn from the findings of this investigation.

Barriers to incorporating transition education best practices included unit level support for attending education opportunities often colliding with operations, and New Graduates fear of losing clinical hours to attend. There were also funding limitations, so not all new graduates within an organization received resources to participate in a formal transition program and missed out on education opportunities. Strategies for implementing toolkit recommendations in the area of transition program education opportunities require adequacy of resources so transition program accessibility is equitable for all New Graduates. Further, implementation of feedback from in-service/workshop opportunities should be a high priority to ensure the opportunities are indeed helpful and meeting New Graduate needs.

**Recommended Best Practice**

The emphasis in this study of New Graduate transition programs was not on pre-registration education; however it emerged as a common discussion point within the literature review and qualitative components of data collection in regards to practical skill development. New Graduates desire more opportunities for practical skill development during their undergraduate programs. A barrier to incorporating pre-registration education best practice is the lack of collaboration between academia and practice regarding transition. Although there are some good examples of partnerships in BC, there is evidence of confusion surrounding each stakeholder’s role in preparing for the transition experience. A strategy to implement Tool-Kit recommendations in the area of pre-registration education would include cohesive partnerships between academia and practice.
## Support

### Recommendations for the Toolbox

<table>
<thead>
<tr>
<th>STRONGLY RECOMMENDED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• During the transition period, formal supports should continue to be available for at least six to nine months post-hire.</td>
</tr>
<tr>
<td>• Provide preceptors working with New Graduates with required preceptor education</td>
</tr>
<tr>
<td>• Provide New Graduates with mentors to help provide support beyond the preceptored period of transition</td>
</tr>
<tr>
<td>• Ensure there are opportunities for New Graduate nurses to connect with other New Graduate nurses so they can provide each other with support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECOMMENDED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Encourage key stakeholders to provide orientation for a minimum of 4 (four) weeks and longer if possible and on one unit.</td>
</tr>
</tbody>
</table>

**Strongly Recommended**

The literature review, and qualitative, and quantitative portions of the investigation all provided evidence to support formal transition programs of at least 6-9 months in length. Such a length helps support New Graduates during the period 6 months post-hire when job satisfaction and confidence are low (Bratt, 2009). Qualitative evidence revealed that New Graduates did not subjectively perceive they had made the transition until around the one year mark, and when a formal program lasted beyond orientation there was a quantitative improvement in ability to access support when needed. Formal support should include the use of preceptors during the orientation phase; however, quantitative findings in this investigation revealed the percentage of preceptored shifts had no significant relationship to transition experience. This may reflect the greater importance on quality and not quantity of the preceptorship component. Formal preceptor training can enhance quality of the preceptorship and has been shown to improve transition outcomes (Beecroft, Hernandez, & Reid, 2008). Non-clinical support through the use of mentors during a formal transition program was also supported by both the literature review and quantitative findings, as a significant positive linear relationship was found between the support score and the helpfulness ranking attributed to the mentor. Kaihlanen, Lakanmaa, & Leena (2013) found that mentor’s served as role change supports by identifying with the role of being a new graduate and sharing personal experiences about adjusting to work life. Consistent with other work showing the importance of staff support, unit staff also played a significant role in New Graduate transition. The same positive linear relationship between support score and helpfulness ranking observed with mentors was found with the unit staff. Informal support through the facilitation of peer-support opportunities was also highly valued by New Graduates, demonstrated in both the literature and qualitative portions of this investigation. Transition programs providing peer support opportunities for new graduates have been shown to assist New Graduates in coping with the stress and emotions experienced during transition and to offer moral support (Keller et al., 2006; Fink et al., 2008).
A significant barrier to incorporating best practices in this area is the high demands of the workplace (e.g. - patient acuity, staffing). This impacts preceptors, mentors, and unit staff and their ability to provide support to the transitioning New Graduate. Also, the lack of funding for preceptor training, preceptor incentives, and the development of mentorship programs further impact best practices uptake in this area.

Strategies for increased uptake include financial support for such initiatives, and education for stakeholders regarding the importance unit staff play in transitioning the New Graduate. Unit staff not directly involved in the transition of a New Graduate (e.g. – Preceptor, Mentor) should still be included in education initiatives concerning support of the New Graduate. The use of technology such as social media holds promise as a low cost method for facilitating peer support.

Recommended

Findings in the quantitative portion of the study demonstrated transition experiences were enhanced with a unit orientation phase of at least four weeks in length. New Graduates who attended an orientation of 4 weeks or more had significantly higher total transition scores than nurses who attended an orientation of either 2 weeks or less or more than 2 weeks but less than 4 weeks. Longer orientation phases were also supported by the literature review that demonstrated those who received a longer orientation that met all of their needs were more satisfied in their current position (Scott, Engelke, & Swanson, 2008).

The primary barrier to longer orientations is available funding for supernumerary time. A lack of qualified and eager preceptors may also be an issue in some cases. The quantitative portion of this investigation suggests that the number of shifts during orientation that are preceptored (less than 25% vs. 25% to 75% vs. more than 75%) is not related to New Graduate transition. Further study in this area is needed, as this finding is very significant in terms of the financial resources required during orientation. A strategy to assist organizations in moving to longer orientations would be to ensure quality preceptors who are well trained which, in turn, may allow for a decrease in the percentage of shifts that are directly one-to-one preceptored.

**Workplace Environment**

<table>
<thead>
<tr>
<th>Recommendations for Toolbox</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRONGLY RECOMMENDED:</td>
</tr>
<tr>
<td>• Provide New Graduates with healthy work environments</td>
</tr>
<tr>
<td>• Train and provide resources to experienced clinical staff nurses on how to be supportive to the New Graduates</td>
</tr>
<tr>
<td>• Establish and enforce a zero-tolerance bullying policy</td>
</tr>
</tbody>
</table>
STRONGLY RECOMMENDED

Workplace environment plays a significant role in the transition experience of a New Graduate. The literature demonstrated that healthy work environments were associated with less reality shock (Kramer, Brewer, & Maguire, 2013), and the quantitative portion of the study demonstrated the negative impact bullying had on the transition experience. Providing a formal transition program assisted bullied New Graduates with their transition experience, however they still did not transition as well as their non-bullied peers. The ability to access support when needed was associated with an improved transition experience regardless of a New Graduate’s bullied status. Thus a healthy work environment is vital to transition experience, and organizations should be vigilant in addressing bullying. Work environments should strive to provide environmental conditions that “enable clinical nurses to work with other competent nurses in controlling the context in which nursing is practiced, in establishing collegial/collaborative relationships with physicians and other disciplines, and in functioning autonomously for the benefit of the patient” (Kramer et al., pg. 31). Further, the positive linear relationship between support sub-scale scores and the helpfulness ranking of the unit staff suggests the need for unit staff education in cultivating a supportive healthy work environment to promote transitioning of New Graduates.

Barriers related to workplace environment best practices include adequate staffing resources to handle patient acuity and demand, and financial resources to ensure adequate supports are available to New Graduates.

Strategies to expand the use of best practices related to workplace environment include the commitment of organizations to providing ‘healthy’ unit environments, bullying policies that outline steps for reporting and consequences for offenders and ensuring all staff within a unit are educated and engaged in supporting the transitioning New Graduate.

**Competency/Critical Thinking**

<table>
<thead>
<tr>
<th>Recommendations for Toolbox</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRONGLY RECOMMENDED:</strong></td>
</tr>
<tr>
<td>• Ensure all New Graduates, regardless of employment status (i.e. – full time vs. casual), have the opportunity to participate in the formal transition program as this assists in skill consolidation</td>
</tr>
<tr>
<td>• Strive to provide New Graduates with at least 49 hours of work each two week period during their first year of transition as this too relates to skill consolidation</td>
</tr>
</tbody>
</table>

STRONGLY RECOMMENDED

An efficient and effective progression to a competent clinical nurse is critical for both an organization and the New Graduate. The literature revealed competence improves over the course of participation in a transition program, and quantitative findings from phase 2 demonstrated that participation in a formal transition program resulted in a better transition experience in the areas of organizing/prioritizing and communication/leadership as compared to New Graduates that did not
participate in a formal transition program. Organizing/prioritizing and communication/leadership are important competencies to master in the first year of transition (Boychuk-Duscher, 2008). Competency is also influenced by the opportunity New Graduates have to consolidate their skills. Qualitative data demonstrated New Graduates had concerns about receiving enough shifts, and often felt ‘new’ for quite some time after hire if they did not get an adequate number of clinical hours. This was supported by quantitative data that showed New Graduates receiving more clinical hours of work within a two week period demonstrated increased organizing/prioritizing and communication/leadership scores. Thus to ensure competency development in new hires, organizations should provide a formal transition support program and a substantial number of work hours (49 for each two week period) to allow for skill consolidation.

In general, New Graduate competencies were assessed and monitored utilizing non-standardized tools developed by the organization, and typically evaluated via self-report or observation. Skill consolidation typically occurred by the end of the first year post-hire, but New Graduates expressed a desire for more feedback throughout the process.

Barriers to the establishment of best practices related to competency include the lack of application of standardized tools for measurement and evaluation by both New Graduates and educators. Further, there are many skills related to practice that may not be utilized frequently, and are difficult to assess; this nature of nursing practice makes evaluation challenging.

Strategies to increase uptake in best practices in the area of competency include ensuring adequate clinical hours for transitioning New Graduates. Also, organizations should implement effective and standardized procedures for monitoring and evaluation.

### Financial Considerations to Implementing a Formal Transition Program

Estimated financial resources were explored for a transition program composed of only those components identified as ‘best practice’ and recommended for the toolkit. These components included a transition program to ensure some level of formal support for 9 months post-hire, education via practical skill-based workshops, an orientation phase of at least four weeks, trained preceptors, a mentor program, informal peer-support opportunities, and unit staff trained to support new graduates during their transition. Delivery of these components requires leadership, so the roles of program manager, program coordinator on site, and administrative support have been included. Table 13 provides an estimate for the financial resources required to provide a formal transition program utilizing the ‘best practice’ component recommendations outlined.
<table>
<thead>
<tr>
<th>Component</th>
<th>Role / description</th>
<th>Details</th>
<th>Expense / Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Director/Manager (1)</td>
<td>Overall manager and director of program. Advocate within senior leadership</td>
<td>4 hr per week</td>
<td>$ 10,688</td>
</tr>
<tr>
<td>Administrative Assistant (1)</td>
<td>Supports Program Director and Program Coordinators. Contact for NGs</td>
<td>8 hr per week</td>
<td>$ 9,750</td>
</tr>
<tr>
<td>Program Coordinator (1)</td>
<td>Responsible for supporting NGs at a particular site, providing support when necessary, and ensuring all components of program are delivered</td>
<td>0.5 of a full time position</td>
<td>$ 43,875</td>
</tr>
<tr>
<td>NG orientation (100)</td>
<td>NG participating in supernumerary time on the nursing unit Four weeks</td>
<td>98 hours $30.78* 16% premiums X 100</td>
<td>$ 349,907</td>
</tr>
<tr>
<td>NG education (100)</td>
<td>NG attending three workshops delivered during the first year of transition</td>
<td>24 hours $30.78* X 100</td>
<td>$ 73,900</td>
</tr>
<tr>
<td>Unit staff education (200)</td>
<td>To provide training on how to support new hires during their transition (anti-bullying, supportive environment, etc.)</td>
<td>2 hours $45.00* (top range)</td>
<td>$ 9,000</td>
</tr>
<tr>
<td>Formal preceptor education (100 participants)</td>
<td>Workshop focusing on preceptor roles and responsibilities. Mentorship workshop</td>
<td>4 hours $45.00* (top range)</td>
<td>$ 18,000</td>
</tr>
<tr>
<td>Peer support opportunities</td>
<td>NG attending social event / World Café / Facebook / Twitter IMIT set up / maintenance</td>
<td>2 hours 4 times a year</td>
<td>Off hours</td>
</tr>
<tr>
<td>Office Overhead</td>
<td>Start Up: Desk, Chair, Filing cabinet, Phone, Cell phone, General Supplies, Computer, Printer. Ongoing Annual Costs Computer, Printer, Telecommunications, Office Space</td>
<td>Start-up purchase</td>
<td>$9,200</td>
</tr>
<tr>
<td>Education Non-wage</td>
<td>Printed material, Audio-visual aides Teaching tools / supplies Education labs / Lecture rooms</td>
<td></td>
<td>$2,000</td>
</tr>
<tr>
<td>Travel</td>
<td>Program Coordinator NG to Education days</td>
<td></td>
<td>$1,500</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>$545,820</td>
</tr>
</tbody>
</table>
Cost-savings realized by improved retention

The vast majority of evaluation of transition programs to date has focused on the impact on nurse graduate retention. In some cases authors attempted to justify the costs of implementing transition programs with the potential savings this improved retention provided, or the Return on Investment (ROI). In general, the literature in this area has shown a wide range in savings, has rarely provided thorough detail regarding how figures were obtained, and has been limited to a US context. In all cases the savings derived from improved retention was used to support program implementation; however, there is opinion that too much focus on the financial benefit deprives administrators from the outcome of improved working environments that formal transition programs can provide (Anderson, Hair, & Todero, 2012).

A US resource with a more detailed financial analysis is the ‘Business Plan for Employers’ (National Council of State Boards of Nursing, 2012), designed to assist employers in calculating the return on investment from implementing a transition program. The ROI calculation involves determining the difference in retention pre and post program implementation to derive figures on the number of job ‘losses’ saved by the transition program, the potential cost savings derived from decreased turnover, and the difference in potential cost savings vs. program implementation costs.

Figure 14 – Potential Cost Savings

Step 1: Improved retention resulting from implementation of transition program.

* Organization hiring 100 NGOs per year, assume 28% turnover. (Canadian Nursing Association, 2007)

^ BC Health Authorities average 6% turnover

* US national new graduate turnover rates have been reported at 27.1% (PricewaterhouseCoopers, 2007).

^ BC does not have a standardized program. There is potential for greater retention and return on investment if all Health Authorities adopt the SET2Practice recommendations outlined.
This calculation demonstrates a potential $1,354,263.90 return on investment for an organization that hires 100 new graduates a year implementing the recommendations outlined, providing support that investing in a formal transition program is an effective utilization of fiscal resources. A limitation in this
calculation is that the per capita turnover cost is from a US context, and further research in the area of turnover costs from a Canadian context is strongly recommended. There are several areas in which cost savings can occur through the implementation of a formal transition program. The improved retention saves organizations resources that would otherwise be directed towards the recruitment, hiring, and training of new RNs to replace those not retained. Some jurisdictions may also rely heavily on costly temporary nursing staffing agencies or pay excessive amounts of overtime to existing staff to maintain adequate nursing levels stressed by turnover. In addition there are productivity costs impacting an organization related to the learning curve of the new RN, and any decreased productivity during the pre-turnover phase (Jones, 2005). In order to accurately calculate the ROI of implementing the transition program components, such turnover costs need to be determined specific for the jurisdiction implementing the program.

**Additional Transition Program Considerations**

There were study findings that did not meet the defined criteria to be considered 'best practice’ recommendations, but were still significant enough to be included as additional considerations for a transition program.

Qualitative findings suggested inconsistencies and a general lack of understanding amongst New Graduates regarding what was available to them as part of their formal transition program. Many New Graduates were unclear as to the nature and extent of the support available to them as part of the transition program. Organizations should provide clear communication about the nature of the transition program, including key resource individuals and the roles and expectations of all players.

Quantitative findings revealed that the helpfulness of preceptor, mentor, and staff nurses played a large role in supporting the transition of New Graduates to practice. This study is unique in highlighting the positive impact supportive unit staff had on the New Graduate transition experience as the more helpful New Graduates found their unit staff in supporting their transition, the more positive their transition experiences. This support New Graduates received at the unit level may explain why the percentage of preceptored shifts did not play a significant role in their transition experiences.

British Columbia has a well-developed provincial Employed Student Nurse program; however, quantitative findings failed to demonstrate that participation in the program had a significant relationship with the New Graduates’ transition experiences. This was an unexpected finding and contrary to other studies that have revealed several benefits of these programs in easing New Graduate transition including less orientation and transition time, reduced graduate stress, familiarity with institutional culture, and increased retention (Gamroth, Budgen & Lougheed, 2006; Nelson et al., 2004; Olsen et al., 2001; Phillips, Kenny, Smith, & Esterman, 2012; Rochford et al., 2009). In contrast, qualitative findings related to the ESN Program showed that New Graduates and nurse leaders clearly valued the employment program. Several factors may have accounted for the discrepancy. First, for the majority of New Graduates, considerable time had elapsed between the completion of the ESN program and the end of their first year of employment, as much as three years in some cases. Second, this mixed
methods study gave limited attention to the pre-registration period. The quantitative survey included the ESN program as part of a broader question related to new graduates’ pre-registration health care experiences with graduates asked to indicate whether they had participated in an ESN experience. The open-ended nature of the qualitative study allowed new graduates to elaborate details about influences such as the ESN Program on their transition experiences. In general, new graduate nurses were very positive about the value of ESN, but expressed some negative views. Negative views arose either from false promises that ESN participation would facilitate subsequent employment or from higher organizational expectations that translated into less support. ESN Program prepared New Graduates made clear their need for the same amount of orientation and other supports that non-ESN Program New Graduates received to transition to RN scope of practice. This investigation suggests organizations should be consistent in the support provided to New Graduates regardless of ESN Program participation; however, additional study using a longitudinal design is warranted to further examine the impact of the ESN Program on the transition experience.

Several additional practices beneficial for transition support programs emerged. A variety of educational approaches appear to better meet the needs of the millennial-generation of New Graduate learners. Transition programs that delivered workshop/education opportunities over the duration of the first year of transition rather than concentrated only during the orientation phase facilitate transition had merit. The superiority of this year long educational delivery may relate to new graduates greater ability to access formal and informal supports whether from preceptors, mentors, and/or unit staff. The value of ongoing education support is consistent with Boychuk-Duchscher’s (2008) Transition Stages Model for new nurse graduates. Health Authorities providing educational support that spanned the year did not consistently align it according to the three stages and might benefit from doing so: Doing 1 – 3 months (focusing on skills, interventions), Being 4 – 6 months (focusing on reasoning, critical thinking, conscious competency) and knowing 7 – 12 months (career development). Peer support was also an important element and organizations should consider a variety of methods to ensure ample opportunities such as social networking and time within educational delivery for peer interaction.

**Challenges and Limitations**

During the course of this project, a number of conceptual and methodological challenges emerged and are discussed below.

**Conceptual**

Research related to New Graduate transition, including the current study, has been plagued by conceptual challenges. Three areas of conceptual confusion emerged in conjunction with the literature review: i) interchangeable use of the terms orientation and transition; ii) critical thinking used distinct from, or subsumed by, competency; iii) preceptor and mentor or other related terms used interchangeably
Additional New Graduate support beyond the traditional orientation period was defined both as an extended orientation and as a formal transition program. In the majority of cases the supports provided were very similar and the only difference was in the terminology used to define the program. Another area of inconsistency was the use of ‘critical thinking’ used separately from, or subsumed by ‘competency’. Finally, lack of clarity with titles and definitions was also apparent in the terminology used to describe people assigned to support the new graduate: Preceptor, Mentor, Buddy, Clinical Coach, and Transition Program Coordinator. This conceptual overlap made it challenging to compare studies to identify best practices related to transition program components.

To mitigate these challenges in Phase 2 a glossary of terms was created to accompany the online survey. The extent to which New Graduates accessed the glossary in completing the survey remains unknown.

**Methodological Challenges**

The major methodological challenges arising during the project related to timeframe, ethics, institutional reporting, and quality of tools for measuring new nurse transition outcomes.

**Time.** Perhaps the largest limitation of this investigation was the strict timeline for completion which logistically prevented a longitudinal study design. This resulted in most of the New Graduates participating in the online survey relying on retrospective self-reporting of their transition experiences, potentially affecting the validity of data. Use of a mixed-methods design sought to mitigate some of these limitations.

**Ethics.** With a project of this magnitude the ethics approval process was complex. The investigation required approval from seven BC Health Authorities and four BC post-secondary institutions. UBC-Okanagan has a harmonized research ethics review process with Interior Health, Providence Health, Provincial Health Services, and Vancouver-Coastal Health. However, prior to submitting the project to the University of British Columbia-Okanagan research ethics board it first had to be reviewed and approved by the research ethics boards of Northern Health, Vancouver-Island Health, Fraser Health, and Vancouver Island University. The following table outlines the timeline for the ethics review process:

<table>
<thead>
<tr>
<th>Research Ethics Board</th>
<th>Date Submitted</th>
<th>Date Approval Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vancouver Island</td>
<td>March 2011</td>
<td>April 2011</td>
</tr>
<tr>
<td>Northern</td>
<td>February 2011</td>
<td>March 2011</td>
</tr>
<tr>
<td>Fraser</td>
<td>March 2011</td>
<td>June 2011</td>
</tr>
<tr>
<td>University of British Columbia-Okanagan</td>
<td>March 2011</td>
<td>June 2011</td>
</tr>
<tr>
<td>Vancouver Island University</td>
<td>March 2011</td>
<td>April 2011</td>
</tr>
</tbody>
</table>
There were several additional steps that further contributed to the complexity of the process. A co-principal investigator was required to obtain ‘Affiliated Researcher’ status in both the Fraser and the Vancouver-Coastal Health Authorities prior to submitting for ethics review, leading to a further delay in the research ethics application. Also, despite Vancouver-Coastal being part of the harmonized process for ethics review at UBC, projects still had to go through an additional approval process through the Vancouver-Coastal Health Research Institute. Letters of approval from high level management within each Health Authority had to be obtained including the Chief Nursing Officers, Chief Financial Officers, and Chief Data Stewards. Requesting information from such high-level managers was an involved and timely process. In addition, the application to the Fraser Health Research Ethics Board required significant modifications after initial review further delaying the process. From the table above all other Health Authorities not harmonized with University of British Columbia-Okanagan approved the project by April of 2011, but the delays experienced through the Fraser Health process set back Phase 2 data collection by approximately two months. Fraser Health also had significant restrictions on the ability to recruit participants and request their participation, which likely explains the limited level of online survey participation from Fraser New Graduates.

**Sampling.** The small sample size obtained for this study was disappointing, raising concerns about the representativeness of the sample of 2010 New Graduates, and yet reflects a fairly typical low response rate (26%) for online surveys when compared to other methods of data collection such as interviews and postal surveys (Leeuw, 2012). This sample population that practices within extended hours and does shift work makes recruitment particularly challenging. Electronic surveys may not have been well received as this is the most common means of cross-institutional feedback, resulting in “survey apathy.” A second cycle of data collection would have been helpful and boosted numbers but may have represented a different cohort of New Graduates (2011 vs. 2010). Additionally, summer data collection may have hampered responses. The small sample size, coupled with variations in their programs, did not allow for comparison between Health Authorities. Unfortunately, due to budget constraints and eligibility criteria not all New Graduates were able to participate.

This study did not include front line staff input, including staff who had been preceptors/mentors although there has been significant research related to preceptorship. It was felt that managers and clinical educators would represent frontline staff but in retrospect the importance New Graduates placed on unit staff would warrant specific attention to this group.

**Measurement.** Measurement of New Graduate transition outcomes was restricted both by the lack of standardized tools or failure to use existing standardized tools. A review of the literature surfaced few examples of transition specific tools. Use of the Casey-Fink survey was prevalent in the US (Consortium), was relatively current (Casey, Fink, 2001), and provided a direct measure of scope of practice of the New Graduate (e.g. Planning/prioritizing, communication/teamwork). However, it did not reflect the Canadian context, such as language related to delegation, and was limited in representing the Canadian New Graduate experience. The mix of dimensions (subscales) related to the transition captured by the Casey-Fink does not provide a strong indication that New Graduates have achieved a successful transition.
Institutional Reporting. Challenges related to HA institutional reporting had an impact on meeting some of the anticipated outcomes of the project. The researchers were external to six of the Health Authorities and despite working through the working-steering committee, internal restrictions were present making access to data incomplete or unavailable. As a result, the cost-benefit analysis that was planned could not be completed. The cost-benefit of implementing a transition program showed promise, but again limitations in consistency of measurement and calculating program expenses limited conclusions that could be drawn in this area.

New Graduate retention in BC improved with a transition program; the class of 2010 New Graduate retention as reported by BC Health Authority transition program coordinators was good, ranging from 82% to 100% with a mean value of 94%. However there were variations and limitations related to measurement. In general, BC Health Authorities had challenges tracking New Graduate retention through human resources mechanisms, which limited a province wide picture of retention. A movement towards standardizing such processes within the context of BC is strongly recommended.

Future Research and Next Steps

Future Research

Research related to New Graduate transition programs has overall been of low quality and primarily descriptive in nature. The developed toolbox needs to be tested, and strengthened in the areas where minimal evidence has been provided. In addition, broadening the concept of New Graduate best practices requires further investigation into each program component.

New Graduate specific education is poorly evaluated and efforts to identify quantifiable outcome measures would be beneficial. Education during a transition program needs further study to help identify appropriate content, delivery methods, and length that result in a positive transition experience. People supports such as mentors, preceptors, and unit staff proved very valuable in the transition process, but further study within the context of a transition program could potentially identify standards for training length, content, education delivery, and New Graduate matching processes. Comparison studies on the impact of various New Graduate transition support models would also benefit program development and structure.

Program components that are useful have been identified, but there is little evaluation related to when the support component was implemented and its impact on the transition experience. This type of research would help bridge much of Boychuk-Duchscher (2008) New Graduate transition model work to program development and this new model needs application and testing. New Graduate evaluation is important within the larger context of patient care outcomes.
This investigation suggests the provincial Employed Student Nurse Program warrants further study to evaluate outcomes related to transition and ensure the program is addressing the objectives for which it was created. Also, investigations are needed to identify the supports required by nursing students participating in the Employed Student Nurse Program, and the impact of an Employed Student Nurse Program on transition compared to other pre-registration options such as co-ops.

**Next Steps for BC**

This project has resulted in increased collaboration and discussion amongst BC Health Authorities regarding their New Graduate transition programs, and the appetite for further work in this area is evident. Independent Health Authority program information must be shared and understood by all parties involved. To assist in moving transition program development forward, organizations need to move towards the development and/or utilization of standardized tools and methods for measuring aspects of New Graduate transition. This includes specific New Graduate characteristics such as competency and job satisfaction, as well as program variables such as New Graduate retention and return on investment. Thorough evaluation of New Graduate, preceptor, mentor and unit staff education provided within transition programs would help identify delivery methods, content, and length that are best practice and can be shared with transition program coordinators in other Health Authorities. Many organizations currently have partnerships with academia for a variety of programs and initiatives, yet evaluation of these partnerships is limited and inhibits the sharing of promising innovations with others. Lastly, BC Health Authorities need to continue to be vigilant regarding the health of their clinical units. There must be clear policies and practice concerning bullying, and New Graduates should be very clear regarding the steps they should take when experiencing bullying in the workplace.


### Appendix A: Health Authority Programs

<table>
<thead>
<tr>
<th>Health Authority Services</th>
<th>Providence</th>
<th>Vancouver Island</th>
<th>Fraser</th>
<th>Northern</th>
<th>Interior</th>
<th>Vancouver Coastal</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 hour hospital and organization orientation. Nursing Orientation Program - 6 weeks. 56 hours classroom; 6 - 4 hour workshops. Competency Validation Day at 2 1/2 months</td>
<td>1 day new employee orientation. 4 day general nursing orientation, 1 day New Graduate orientation</td>
<td>3 day general orientation. Then a Nursing orientation that can include up to 6 weeks of supernumerary time. Also a 6 month full-time rotation position offered to New Graduates at the manager’s discretion</td>
<td>General orientation to the health authority, program, and site. Online New Employee Orientation (4 hours). Site Based Program Orientation and Unit Based Orientation. Clinical orientation shifts, number customized to the New Graduate</td>
<td>Online orientation (approx. 2-3 hours). 2-3 day site orientation as well.</td>
<td>Regional Orientation followed usually by a site or discipline specific orientation. Includes a specific new graduate orientation at larger sites. 144 hours. These hours are supernumerary in nature and are coded through our scheduling office as orientation time.</td>
<td>Regional online orientation (4 hour module). Health Specific Delivery Area specific orientation. Info tech training (8 hour patient care info system training). Unit level orientation - 144 hours</td>
</tr>
<tr>
<td>Health Authority</td>
<td>Provincial Health Services</td>
<td>Providence</td>
<td>Vancouver Island</td>
<td>Fraser</td>
<td>Northern</td>
<td>Interior</td>
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</tr>
<tr>
<td>Preceptor info</td>
<td>5 preceptor workshops. No formal matching. 12-15 preceptored shifts.</td>
<td>1 – 3 sets of preceptored – supernumerary shifts Preceptors take a level 1 online course, and a level 2 workshop instructed by the New Graduate educators. No formal matching process.</td>
<td>Up to six weeks of buddy shifts/supernumerary time. No formal preceptor education/training. New Graduates are assigned a preceptor</td>
<td>150 supernumerary hours. There are workshops available for staff – is not mandatory. Unit leaders pair the preceptor and New Graduate</td>
<td>Typically 3 weeks of preceptored orientation. New Graduates are assigned a preceptor, no formal matching process. Preceptors receive 10 hours of training</td>
<td>Preceptor workshop, but not mandatory. No formal matching process. 144 hours</td>
</tr>
<tr>
<td>Transition program education</td>
<td>New Graduate placed in one of 18 clinical pathways, each pathway is 3 months long. 15% of time during pathways is education via workshops/assignments, etc. No formal peer support opportunities</td>
<td>4 education workshops delivered on a quarterly basis. A mentorship team of nurses (selected by interview and experience level) floats the hospital and are available for clinical support. At 3 months all New Graduates get</td>
<td>New Graduate workshop (attendance optional) delivered shortly after hire.</td>
<td>3 New Graduate Workshops provided to all new graduate RN’s and RPN’s</td>
<td>New Graduate meet and greet in the 3 main centres. Transition funding can be applied to buddy shifts and training (e.g. – courses, rural nurse certificate, etc.). Training</td>
<td>Three Education sessions.</td>
</tr>
<tr>
<td>Health Authority</td>
<td>Provincial Health Services</td>
<td>Providence</td>
<td>Vancouver Island</td>
<td>Fraser</td>
<td>Northern</td>
<td>Interior</td>
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<tr>
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</tr>
<tr>
<td></td>
<td></td>
<td>together for a New Graduate seminar. Opportunity for sharing of experiences with peers.</td>
<td></td>
<td></td>
<td>decisions guided by learning plan developed by New Graduate and manager. 3 New Graduate workshops in each of the 3 main centres</td>
<td></td>
</tr>
<tr>
<td>Comp./CT</td>
<td>Competency formally assessed at the competency validation day 2 1/2 months post-hire. CT not formally assessed</td>
<td>CAPE tool – self-assessment for competency</td>
<td>All New Graduates subject to typical employee performance appraisal. No specific eval of critical thinking.</td>
<td>Competencies, critical thinking evaluated together via CAPE Tools</td>
<td>Rely on site developed competency assessment tools.</td>
<td>Competency tool</td>
</tr>
</tbody>
</table>
## Appendix B 1: Lit Synopsis Table

<table>
<thead>
<tr>
<th>Study Descriptors</th>
<th>Program Elements</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author(s)</strong></td>
<td><strong>Level of Evidence Score</strong></td>
<td><strong>Design</strong></td>
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<tr>
<td>Adlam, K. A., Dotchin, M., &amp; Hayward, S. (2009)</td>
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<td>Almada, P., Carafoli, K., Flattery, J. B., French, D. A., &amp; McNamara, M. (2004)</td>
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<td>Altier, M.E., &amp; Krsek, C.A. (2006)</td>
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<tr>
<td>Anderson, T., Linden, L., Allen, M., &amp; Gibbs, E. (2009).</td>
<td>6</td>
<td>Quasi-experimental</td>
</tr>
<tr>
<td>Applin, H., Williams, B., Day, R., &amp; Buro, K. (2011)</td>
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<td>Descriptive</td>
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<td>Baggot, D. M., Hensinger, B., Parry, J., Valdes, M. S., &amp; Zaim, S. (2005)</td>
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<td>Beecroft, P., Hernandez, A. M., &amp; Reid, D. (2008)</td>
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<td>Beecroft, P. C., Santner, S., Lacy, M. L., Kunzman, L., &amp; Dorey, F. (2006)</td>
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<td>Beyea, S., Kobokovich Van Reyn, L., &amp; Slattery, M.J. (2007)</td>
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<td>Longitudinal</td>
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<td>Bratt, M. M. (2009)</td>
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<td>Descriptive</td>
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<td>Blanzola, C., Lindeman, R., &amp; King, M. L. (2004)</td>
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<td>Quasi-experimental</td>
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</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Level of Evidence Score</td>
<td>Design</td>
</tr>
<tr>
<td>Campbell, S. L., Prater, M., Schwartz, C., &amp; Ridenour, N. (2001)</td>
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<td>Casey, K., Fink, R., Krugman, M., &amp; Propst, J. (2004)</td>
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<tr>
<td>Clark, T., &amp; Holmes, S. (2007)</td>
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<td>Ellerton, M. L., &amp; Gregor, F. (2003)</td>
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<td>Fink, R., Krugman, M., Casey, K., &amp; Goode, C. (2008)</td>
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<td>Forneris, S. G., &amp; Peden-McAlpine, C. (2009)</td>
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<td>Fox, K. C. (2010)</td>
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<td>Gavlak, S. (2007)</td>
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<td>Komaratat, S., &amp; Oumtanee, A. (2009)</td>
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<td>Kowalski, S., &amp; Cross, C. L. (2010)</td>
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New Graduate Nurse Best Practices
### Appendix B 1: Lit Synopsis Table

<table>
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<tr>
<th>Author(s)</th>
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<th>Design</th>
<th>Sample Size</th>
<th>Transition Program Length (months)</th>
<th>Unit Orientation Length</th>
<th>New Graduate Specific Education</th>
<th>Types of supports provided</th>
<th>Transition Program Length (months)</th>
<th>Unit Orientation Length</th>
<th>New Graduate Specific Education</th>
<th>Types of supports provided</th>
<th>Competency and Critical Thinking</th>
<th>Job Satisfaction</th>
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<td>Schoessler, M., &amp; Waldo, M.</td>
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<td>Descriptive</td>
<td>-</td>
<td>&gt; 6 months</td>
<td>-</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>Schoessler, M., &amp; Waldo, M.</td>
<td>-</td>
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<td>Schoessler, M., &amp; Waldo, M.</td>
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## Appendix B 1: Lit Synopsis Table

<table>
<thead>
<tr>
<th>Study Descriptors</th>
<th>Program Elements</th>
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<tr>
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<td><strong>Level of Evidence Score</strong></td>
<td><strong>Design</strong></td>
</tr>
<tr>
<td>Scott, E. S., Engelke, M. K., &amp; Swanson, M. (2008)</td>
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<td>Smith, J., &amp; Crawford, L. (2003)</td>
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<td>Sorensen, H. A., &amp; Yankech, L. R. (2008)</td>
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<tr>
<td>Strauss, M. B. (2009)</td>
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<tr>
<td>Young, M. E., Stuenkel, D. L., &amp; Bawel-Brinkley, K. (2008)</td>
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<tr>
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New Graduate Nurse Best Practices
### Retention and Turnover Rates

<table>
<thead>
<tr>
<th>Reference</th>
<th>Level of Evidence Score</th>
<th>Program type</th>
<th>Program Length</th>
<th>Study Sample Size</th>
<th>Pre-program Retention</th>
<th>Post-program Retention</th>
<th>% Change</th>
<th>Time when post-program rate measured</th>
<th>Cost Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almada, Carafoli, Flattery, French and McNamara (2004)</td>
<td>3</td>
<td>Un-named</td>
<td>12 mo.</td>
<td>40</td>
<td>60%</td>
<td>89%</td>
<td>39%</td>
<td>At 14 mo. post implementation of the program</td>
<td></td>
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<tr>
<td>Anderson and Linden (2009)</td>
<td>6</td>
<td>Residency</td>
<td>12 mo.</td>
<td>90</td>
<td>60%</td>
<td>90%</td>
<td>30%</td>
<td>At one year post hire</td>
<td></td>
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<tr>
<td>Leigh et al (2005)</td>
<td>5</td>
<td>Un-named</td>
<td>12 mo.</td>
<td>Not provided</td>
<td>76%</td>
<td>99%</td>
<td>23%</td>
<td>At one year post hire</td>
<td>$186,102 US six months savings</td>
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<tr>
<td>Marcum and West (2004)</td>
<td>5</td>
<td>Un-named</td>
<td>9 mo.</td>
<td>20</td>
<td>60%</td>
<td>89%</td>
<td>29%</td>
<td>At 18 mo. post completion of the program</td>
<td>$330,481 US annual return on investment</td>
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<tr>
<td>Zucker, Goss, Williams, Bloodworth, Lynn, Denker, and Gibbs (2006)</td>
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<td>Mentorship</td>
<td>18 mo.</td>
<td>Not provided</td>
<td>77%</td>
<td>90%</td>
<td>13%</td>
<td>At 6 mo. program implementation</td>
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### Post-Program Retention Only

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<tr>
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<th>Program type</th>
<th>Program Length</th>
<th>Study Sample Size</th>
<th>Pre-program Retention</th>
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<th>% Change</th>
<th>Time when post-program rate measured</th>
<th>Cost Benefit</th>
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</thead>
<tbody>
<tr>
<td>Altier and Krsek (2006)</td>
<td>6</td>
<td>Residency</td>
<td>12 mo.</td>
<td>111</td>
<td>-</td>
<td>87%</td>
<td>-</td>
<td>At one year post hire</td>
<td></td>
</tr>
<tr>
<td>Bratt (2009)</td>
<td>5</td>
<td>Residency</td>
<td>15 mo.</td>
<td>1,100</td>
<td>-</td>
<td>90%</td>
<td>-</td>
<td>15-18 mo. post program completion</td>
<td></td>
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<tr>
<td>Gavlak (2007)</td>
<td>5</td>
<td>Un-named</td>
<td>12 mo.</td>
<td>120</td>
<td>-</td>
<td>94%</td>
<td>-</td>
<td>At one year post hire</td>
<td></td>
</tr>
<tr>
<td>Keller, Meekins and Summers (2006)</td>
<td>3</td>
<td>Residency</td>
<td>12 mo.</td>
<td>72</td>
<td>-</td>
<td>89%</td>
<td>-</td>
<td>At one year post hire</td>
<td></td>
</tr>
<tr>
<td>Kowalski and Cross (2010)</td>
<td>5</td>
<td>Residency</td>
<td>12 mo.</td>
<td>55</td>
<td>-</td>
<td>78%</td>
<td>-</td>
<td>At one year post hire</td>
<td></td>
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<tr>
<td>Mills and Mullins (2008)</td>
<td>3</td>
<td>Mentorship</td>
<td>12 mo.</td>
<td>Not provided</td>
<td>-</td>
<td>Mentored = 92%; Control = 77%</td>
<td>-</td>
<td>No exact point provided, but within one year of hire</td>
<td></td>
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### Papers Using Turnover Rates

<table>
<thead>
<tr>
<th>Reference</th>
<th>Level of Evidence Score</th>
<th>Program type</th>
<th>Program length</th>
<th>Study sample size</th>
<th>Pre-program retention</th>
<th>Post-program retention</th>
<th>% change</th>
<th>Time when post-program rate measured</th>
<th>Cost Benefit</th>
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<tbody>
<tr>
<td>Strauss (2009)</td>
<td>3</td>
<td>Un-named</td>
<td>3 mo.</td>
<td>Not provided</td>
<td>97%</td>
<td>-</td>
<td>At one year post hire</td>
<td>$1,040,153 US annual savings</td>
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<tr>
<td>Fox (2010)</td>
<td>3</td>
<td>Mentorship</td>
<td>12 mo.</td>
<td>12</td>
<td>32%</td>
<td>16%</td>
<td>16%</td>
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<td>$823,680 US annual savings</td>
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<tr>
<td>Pine and Tart (2007)</td>
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<td>12 mo.</td>
<td>48</td>
<td>50%</td>
<td>13%</td>
<td>37%</td>
<td>At one year</td>
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<tr>
<td>Schoessler and Waldo (2006)</td>
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<td>24 mo.</td>
<td>Not provided</td>
<td>20%</td>
<td>6%</td>
<td>14%</td>
<td>3 years post program implementation</td>
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<tr>
<td>Williams, Goode, and Krsek (2007)</td>
<td>6</td>
<td>Residency</td>
<td>12 mo.</td>
<td>679</td>
<td>-</td>
<td>12%</td>
<td>-</td>
<td>At one year post hire</td>
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<tr>
<td>Krugman, Bretschneider, Horn, Krsek, Moutafis, and Smith (2006)</td>
<td>4</td>
<td>Residency</td>
<td>12 mo.</td>
<td>Not provided</td>
<td>-</td>
<td>8%</td>
<td>-</td>
<td>At one year post hire</td>
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**CERTIFICATE OF APPROVAL - MINIMAL RISK**

<table>
<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR:</th>
<th>INSTITUTION / DEPARTMENT:</th>
<th>UBC BREB NUMBER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kathy Rush</td>
<td>UBC/UBCO Health &amp; Social</td>
<td>H11-00444</td>
</tr>
<tr>
<td></td>
<td>Development/UBCO Nursing</td>
<td></td>
</tr>
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</table>

**INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vancouver Coastal Health (VCHRI/VCHA)</td>
<td>Vancouver General Hospital</td>
</tr>
<tr>
<td>UBC</td>
<td>Okanagan</td>
</tr>
<tr>
<td>Children's and Women's Health Centre of BC (incl. Sunny Hill)</td>
<td>Women's Health Research Institute</td>
</tr>
<tr>
<td>Providence Health Care</td>
<td>Mount Saint Joseph Hospital</td>
</tr>
<tr>
<td>Providence Health Care</td>
<td>St. Paul's Hospital</td>
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</table>

**CO-INVESTIGATOR(S):**

N/A

**SPONSORING AGENCIES:**

Michael Smith Foundation for Health Research - "Expanding the Evidence for New Graduate Transition Best Practices"

**PROJECT TITLE:**

Expanding the Evidence for New Graduate Transition Best Practices

**CERTIFICATE EXPIRY DATE:** June 1, 2012

**DOCUMENTS INCLUDED IN THIS APPROVAL:**

<table>
<thead>
<tr>
<th>Document Name</th>
<th>Version</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>Protocol:</td>
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<tr>
<td>Expanding the Evidence for New Graduate Transition Best Practices</td>
<td>3.0</td>
<td>March 10, 2011</td>
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<td>Consent Forms:</td>
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<tr>
<td>focus group consent form - front line managers</td>
<td>3.0</td>
<td>April 5, 2011</td>
</tr>
<tr>
<td>focus group consent form - transition program coordinators</td>
<td>3.0</td>
<td>April 5, 2011</td>
</tr>
<tr>
<td>Online survey consent form</td>
<td>2.0</td>
<td>April 5, 2011</td>
</tr>
<tr>
<td>Individual interview consent form - nursing faculty</td>
<td>3.0</td>
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</tr>
<tr>
<td>focus group consent form - new graduate nurses</td>
<td>2.0</td>
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<tr>
<td>Advertisements:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>recruitment poster</td>
<td>2.0</td>
<td>April 5, 2011</td>
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<tr>
<td>recruitment script for phone and verbal invitations</td>
<td>2.0</td>
<td>April 5, 2011</td>
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<tr>
<td>recruitment for webpages and enewsletters</td>
<td>2.0</td>
<td>April 5, 2011</td>
</tr>
<tr>
<td>Questionnaire, Questionnaire Cover Letter, Tests:</td>
<td></td>
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</tr>
<tr>
<td>focus group demographics sheet - front line managers</td>
<td>2.0</td>
<td>April 5, 2011</td>
</tr>
<tr>
<td>Individual interview guide - nursing program faculty</td>
<td>2.0</td>
<td>February 12, 2011</td>
</tr>
<tr>
<td>Focus group interview guide - front line managers</td>
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</tr>
<tr>
<td>focus group demographics sheet - transition program coordinators</td>
<td>2.0</td>
<td>April 5, 2011</td>
</tr>
<tr>
<td>Online survey letter of invitation</td>
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<td>April 5, 2011</td>
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</table>
The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approval is issued on behalf of the Behavioural Research Ethics Board Okanagan and signed electronically by:

Dr. Daniel Salhani, Chair
Letter of Introduction and Consent Form for New Graduate Nurses Project Focus Groups

Project Title: Expanding the Evidence for New Graduate Transition Best Practices

Participants: New graduate nurses

Introduction/Background
This is a letter of introduction to tell you about a Michael Smith Foundation for Health Research funded project related to new graduate nurse transition to practice. The project is focusing on the practices that best facilitate the integration of new graduates into the workplace. The outcome of the project will be the development of a toolkit of best practices for use with new nurse graduates. We are writing to invite your participation.

Principal Investigator: Kathy Rush, PhD, RN  
UBC-Okanagan, Faculty of Nursing  
Phone: 250.807.9561

Co-Investigator: Monica Adamack, MA, BSN  
Interior Health Authority, Regional Practice Leader for Clinical Professional Education  
Phone: 250.870.4680

Research Coordinator: Jason Gordon, MHS, BScPT  
UBC-Okanagan, School of Nursing  
Phone: 250.212.0305

Who Can Participate?
We are seeking new graduates nurses to participate in focus groups.

Involvement
You are asked to participate in a single focus group discussion. The focus group will follow an interview guide that you will have access to prior to participating. It is expected the focus group will last approximately 60 minutes. There are questions concerning demographics, supports for new graduate nurses within your Health Authority, barriers and challenges impacting the support available to new graduate nurses, and strategies you feel would assist the process.

Costs and Compensation
There are no costs associated with your participation. As a way to compensate you for your time you will be given $50. This form of compensation must not influence your decision to participate. If you would not participate if the compensation was not offered, then you should refuse.
Risks
There are no perceived risks to participating in this study except perhaps the time involved.

Benefits
This investigation has the potential to inform all BC stakeholders in nursing about the best evidence for effective transition of new nurse graduates to practice. New nurse graduates working for health authorities that implement such strategies will benefit by being more supported throughout their transition process. Society in general will benefit through the consistent nursing care as a result of improved retention rates and effective transition to practice of new nurses.

Confidentiality
A number of measures will be used to keep your identity confidential. All participants will be encouraged to avoid discussing anything said during the discussions with outside individuals. We cannot control what other participants do with the information discussed and for that reason can only offer limited confidentiality. The audio-tapes and printed discussions will be kept in a locked cabinet, made available only to members of the research team, and destroyed in 5 years. The printed discussions will use code numbers so no one from the group can be identified. All documents will be identified only by code number and kept in a locked filing cabinet.

The information you provide will be shared with others who study and work with new graduates and be communicated in written papers or oral presentations. We are asking your permission to communicate your information in this way without personally identifying you. It is anticipated that results from the study will be used to guide future research in this area. If you would like a report of the findings please include your mailing address in the space provided at the bottom of this form. You will also be provided with a copy of the signed consent form.

Contact for Concerns about the Rights of Research Participants
Participants have the right to ask questions, and have those questions answered. If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at 1-877-822-8598 or the UBC Okanagan Research Services Office at 250-807-8832.

Withdrawal
Your participation in this research is entirely voluntary. You may withdraw from this study at any time. If you decide to enter the study and to withdraw at any time in the future, there will be no penalty or loss of benefits to which you are otherwise entitled. If you choose to enter the study and then decide to withdraw at a later time, all data collected about you during your enrolment in the study will be retained for analysis.

If you have any questions or desire further information about this study before or during participation you can contact the co-investigators or research coordinator at the contact numbers listed on the first page.
SUBJECT CONSENT TO PARTICIPATE

Expanding the Evidence for New Graduate Transition Best Practices

Check List:

- I have read and understood the subject information and consent form and am consenting to participate in the study Expanding the Evidence for New Graduate Transition Best Practices.
- I have had sufficient time to consider the information provided and to ask for advice if necessary.
- I have had the opportunity to ask questions and have had satisfactory responses to my questions.
- I understand that all of the information collected will be kept confidential and that the result will only be used for scientific objectives.
- I understand that my participation in this study is voluntary and that I am completely free to refuse to participate or to withdraw from this study at any time without effecting my participation in the main study and without changing in any way the quality of care that I receive.
- I understand that I am not waiving any of my legal rights as a result of signing this consent form.
- I understand that there is no guarantee that this study will provide any benefits to me.
- I have read this form and I freely consent to participate in this study.
- I have been told that I will receive a dated and signed copy of this form.

Signatures

_____________________ ___________________________ ______________
Printed name of subject    Signature   Date

_____________________ ____________________________ ______________
Printed name of witness    Signature    Date

_____________________ ____________________________ ______________
Printed name of PI/rep.    Signature   Date
Letter of Introduction and Consent Form for New Graduate Nurses Project Focus Groups

Project Title: Expanding the Evidence for New Graduate Transition Best Practices

Participants: Front line managers, care coordinators, clinical unit coordinators

Introduction/Background
This is a letter of introduction to tell you about a Michael Smith Foundation for Health Research funded project related to new graduate nurse transition to practice. The project is focusing on the practices that best facilitate the integration of new graduates into the workplace. The outcome of the project will be the development of a toolkit of best practices for use with new nurse graduates. We are writing to invite your participation.

Principal Investigator: Kathy Rush, PhD, RN
UBC-Okanagan, Faculty of Nursing
Phone: 250.807.9561

Co-Investigator: Monica Adamack, MA, BSN
Interior Health Authority, Regional Practice Leader for Clinical Professional Education
Phone: 250.870.4680

Research Coordinator: Jason Gordon, MHS, BScPT
UBC-Okanagan, School of Nursing
Phone: 250.212.0305

Who Can Participate?
We are seeking front line managers, care coordinators and clinical unit coordinators to participate in focus groups.

Involvement
You are asked to participate in a single focus group discussion. The focus group will follow an interview guide that you will have access to prior to participating. It is expected the focus group will last approximately 60 minutes. There are questions concerning demographics, supports for new graduate nurses within your Health Authority, barriers and challenges impacting the support available to new graduate nurses, and strategies you feel would assist the process.

Costs and Compensation
There are no costs associated with your participation. As a way to compensate you for your time you will be given $50. This form of compensation must not influence your decision to participate.
participate. If you would not participate if the compensation was not offered, then you should refuse.

Risks
There are no perceived risks to participating in this study except perhaps the time involved.

Benefits
This investigation has the potential to inform all BC stakeholders in nursing about the best evidence for effective transition of new nurse graduates to practice. New nurse graduates working for health authorities that implement such strategies will benefit by being more supported throughout their transition process. Society in general will benefit through the consistent nursing care as a result of improved retention rates and effective transition to practice of new nurses.

Confidentiality
A number of measures will be used to keep your identity confidential. All participants will be encouraged to avoid discussing anything said during the discussions with outside individuals. We cannot control what other participants do with the information discussed and for that reason can only offer limited confidentiality. The audio-tapes and printed discussions will be kept in a locked cabinet, made available only to members of the research team, and destroyed in 5 years. The printed discussions will use code numbers so no one from the group can be identified. All documents will be identified only by code number and kept in a locked filing cabinet.

The information you provide will be shared with others who study and work with new graduates and be communicated in written papers or oral presentations. We are asking your permission to communicate your information in this way without personally identifying you. It is anticipated that results from the study will be used to guide future research in this area. If you would like a report of the findings please include your mailing address in the space provided at the bottom of this form. You will also be provided with a copy of the signed consent form.

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Withdrawal
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If you have any questions or desire further information about this study before or during participation you can contact the co-investigators or research coordinator at the contact numbers listed on the first page.
SUBJECT CONSENT TO PARTICIPATE

Expanding the Evidence for New Graduate Transition Best Practices

Check List:

- I have read and understood the subject information and consent form and am consenting to participate in the study Expanding the Evidence for New Graduate Transition Best Practices.
- I have had sufficient time to consider the information provided and to ask for advice if necessary.
- I have had the opportunity to ask questions and have had satisfactory responses to my questions.
- I understand that all of the information collected will be kept confidential and that the result will only be used for scientific objectives.
- I understand that my participation in this study is voluntary and that I am completely free to refuse to participate or to withdraw from this study at any time.
- I understand that I am not waiving any of my legal rights as a result of signing this consent form.
- I understand that there is no guarantee that this study will provide any benefits to me.
- I have read this form and I freely consent to participate in this study.
- I have been told that I will receive a dated and signed copy of this form.

Signatures

Printed name of subject ___________________________ Signature ___________________________ Date __________

Printed name of witness ___________________________ Signature ___________________________ Date __________

Printed name of PI/rep. ___________________________ Signature ___________________________ Date __________
Expanding the Evidence for New Graduate Transition Best Practices

You are invited to be part of a province wide project investigating the transition of new graduate nurses to their role as a RN/RPN. This study is funded by the Michael Smith Foundation for Health Research and will culminate in a best practices toolkit for use by all health authorities to support the transition of BC new nurse graduates. The data collection portion of this study will launch in June of 2011.

Participants:

**New graduate nurses (2010 Grads)**
- An online survey will be distributed through your health authority’s email distribution system, and there will also be opportunities to contribute to this project via focus groups.

**Front line nurse managers, clinical unit coordinators, and new nurse transition program coordinators**
- Focus group information and the RSVP process will be disseminated through your health authority email distribution system, and participants will be compensated $50 for their time.

**Principal Investigators:**

Kathy Rush, PhD, RN  
UBC-Okanagan, Faculty of Nursing  
Phone: 250.807.9561

Monica Adamack, MA, BSN  
Interior Health Authority  
Regional Practice Leader for Clinical Professional Education  
Phone: 250.870.4680

We look forward to your participation in this project.
Focus Group Interview Guide - NG

Research Objective – To determine new nurse graduate perspectives on the application and effectiveness of best practices in facilitating workplace integration

Date:
Interviewer:
Location:

Questions

1. **Tell me about the first several months of being a RN?**
   - General starter question to stimulate/initiate discussion

2. **Describe a transition from student to RN/RPN. What is your perception of this experience?**
   Cues: - How do you know you have successfully made the transition? What were your expectations for the transition?

3. **How has your organization’s new nurse transition program helped with your transition to your RN role?**

4. **What components of your program did you find were most effective at helping your transition to the RN role?**
   Cues: - Why? What component do you feel was the most important/useful?

5. **What components of your program were the least effective in assisting your transition to the RN role?**
   Cues: - Why?

6. **What suggestions do you have for additional program components/support to help with the new nurse transition experience?**

7. **At this point in the transition experience, what are your main challenges affecting your ability to successfully transition to your RN role?**
   Cues: - Describe some of the barriers you feel continue to inhibit the transition process.

8. **At this point in the transition experience, what are your main strengths affecting your ability to successfully transition to your RN role?**

9. **Please comment on your nursing education and how it prepared or did not prepare you for the transition to practice.**
Focus Group Interview Guide – Front line managers, care coordinators, clinical unit coordinators

Research Objective – To determine the application of best practices, barriers to, and strategies to expand uptake (inter and intra-organizational factors) of new nurse graduate orientation programs

Date:  
Interviewer:  
Location:  

Questions

1. What are the impacts of new graduate nurses being hired to work at your institution in your clinical unit or area you are responsible?  
   Cues: Positive impacts? Challenges?

2. Talk about how your organization supports new graduate nurses to help them in their transition process.  
   Cues: - If you have a specific program, what are the components? What is the most effective and important part of your program?

3. In what areas do you perceive the organization does not meet the needs of new graduate nurses?  
   Cues: - What is the least effective part of your program?

4. What impacts the effectiveness of your organization to assist new nurses in the transition program?  
   Cues: - How does the current work environment in nursing support best practices for new graduate nurse integration? How does it fail to support best practices?

5. What strategies do you feel could assist in the transition of new nurses in your organization?  
   Cues: - What challenges do you feel new nurses still struggle with despite existing supports? What are some other strategies you feel would expand uptake of ‘best practices’ with regards to new graduate nurse transition programs?

6. Please comment on the nursing education received by new nurses prior to their employment and how it prepared or did not prepare them for the transition to the RN/RPN role.
Individual interview guide – nursing faculty

Research Objective – To determine the application of best practices, barriers to, and strategies to expand uptake (inter and intra-organizational factors) of new nurse graduate orientation programs

Date:
Interviewer:
Location:

Questions

1. Describe how your institution’s nursing education curriculum addresses new nurse transition to the RN role.

2. What additions/changes would you make to your program's curriculum to enhance the preparation of your nurse graduates for transition to practice?

3. What barriers/challenges do you feel impact the education sector in terms of preparing nurses for transition to the RN role?

4. What strengths does the education sector have that positively impacts the preparation of nurses for transition to the RN role?

5. Describe any existing relationship you have with individuals from health authorities, and comment on the value of this healthcare environment-academic institution partnership. Describe strategies you feel would enhance partnerships between nursing employers and academic institutions.
Letter of Introduction and Consent Form for New Graduate Nurses Project Online Survey

Project Title: Expanding the Evidence for New Graduate Transition Best Practices

Introduction/Background

This is a letter of introduction to tell you about a Michael Smith Foundation for Health Research funded project related to new graduate nurse transition to practice. The project is focusing on the practices that best facilitate the integration of new graduates into the workplace. The outcome of the project will be the development of a toolkit of best practices for use with new nurse graduates. We are writing to invite your participation.

Principal Investigator: Kathy Rush, PhD, RN
UBC-Okanagan, Faculty of Nursing
Phone: 250.807.9561

Co-Investigator
Monica Adamack, MA, BSN
Interior Health Authority, Regional Practice Leader for Clinical Professional Education
Phone: 250.870.4680

Research Coordinator: Jason Gordon, MHS, BScPT
UBC-Okanagan, School of Nursing
Phone: 250.212.0305

Who Can Participate?

As a new graduate nurse we are seeking your participation in an online survey that focuses on your transition to practice during the past year. Your participation is entirely voluntary, so it is up to you to decide whether or not to take part in this study. There is no penalty if you decline to participate.

Involvement

The online survey consists primarily of multiple-choice questions, and takes approximately 15 minutes to complete. You will see that the survey is divided into five sections: It includes questions that ask for information related to your background and demographics, your experiences during transition and specific components regarding taking on the new graduate role.

Costs and Compensation

There are no costs associated with your participation. We do not pay you in cash or in-kind for your participation in the online survey portion of this project.

Risks

There are no perceived risks to participating in this study except perhaps the time involved.
Benefits
This investigation has the potential to inform all BC stakeholders in nursing about the best evidence for effective transition of new nurse graduates to practice. New nurse graduates working for health authorities that implement such strategies will benefit by being more supported throughout their transition process. Society in general will benefit through the consistent nursing care as a result of improved retention rates and effective transition to practice of new nurses.

Confidentiality
Your research-related information will not identify you in any way because all identifying information has been removed such that the information is now anonymous and there is no possibility of linking your identity to your information. The company Fluid Surveys will be utilized to collect survey data, and will be stored on the company’s Canadian servers. Once the data collection portion of the study is completed the data will be exported in an electronic file to a server at UBC-Okanagan. The researchers will then instruct Fluid Surveys to electronically erase all data on their server related to the investigation. Access to survey results at UBCO will be password protected, and data will be stored for 5 years. After 5 years the data will be electronically erased from the server database. Again, throughout this process there will be no personal information able to associate your survey results with your personal identity.

Contact for Concerns about the Rights of Research Participants
Participants have the right to ask questions, and have those questions answered. If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at 1-877-822-8598 or the UBC Okanagan Research Services Office at 250-807-8832.

Withdrawal
Your participation in this research is entirely voluntary. You may withdraw from this study at any time. If you decide to enter the study and to withdraw at any time in the future, there will be no penalty or loss of benefits to which you are otherwise entitled. If you choose to enter the study and then decide to withdraw at a later time, all data collected about you during your enrolment in the study will be retained for analysis.

The Survey
By completing the survey you are consenting to your data being used for the purposes of this research project. There are several terms within the survey that the research team has defined in the ‘Glossary of Terms’ attached to your invitation email. Please take a couple of minutes to review the glossary prior to starting the survey. An asterisk identifies a glossary term within the survey the first time that term is used. Please refer to the Glossary for how that term is defined for the purpose of this project prior to completing that survey question.

If you have any questions or desire further information about this study before or during participation, you can contact Jason Gordon at 250-212-0305.

Here is the link to the survey: (survey link will be inserted here)

Thanks in advance for your participation. We look forward to sharing the results of this project through the development of a best practices toolkit for use with BC new nurse graduates.

Regards,
The New Graduate Integration Team
New Graduate Nurses

Expanding the Evidence for New Graduate Nurse Transition to Practice – Section 1

1. Indicate the health authority you primarily work in:
   - Fraser
   - Interior
   - Northern
   - Provincial health services
   - Providence
   - Vancouver-coastal
   - Vancouver island

2. Do you work in or within 100km of a 'Major Centre?' (Major Centre = a community with an acute care facility)
   - Yes
   - No

3. How old are you?
   - Under 25
   - 25 - 35
   - 36 - 45
   - Over 45
4. What is your gender?
   - Female
   - Male

5. What previous health care experience did you have prior to being employed as a nurse in BC (select all that are appropriate)?
   - volunteer on a nursing unit
   - nursing assistant
   - licensed practical nurse
   - employed student nurse*
   - no previous health care experience
   - Other ________________

6. How long have you been working as a newly graduated nurse?
   - less than 6 months
   - 6 months - 1 year
   - More than 1 year

7. What was the length of time between your date of graduation from your nursing education program and your first day of employment as a nurse?
   - less than 3 months
   - 3 months to 6 months
   - more than 6 months

8. What is your employment status?
   - Permanent Full-time
   - Permanent Part-time (enter FTE status, e.g. 0.5 for 1/2 time) ________________
   - Temporary Full-time
   - Temporary Part-time (enter FTE status, e.g. 0.5 for 1/2 time)
   - Casual
9. Further describe your employment status using the choices below:
   ○ One nursing job, no other non-nursing job(s)
   ○ One nursing job, other non-nursing job(s)
   ○ Multiple nursing jobs, no other non-nursing job(s)
   ○ Multiple nursing jobs, other non-nursing job(s)

10. What is the average number of hours you work in a 2 week period?
   ○ less than 25 hours
   ○ 25-48 hours
   ○ 49-80 hours
   ○ more than 80 hours

11. Please respond to the following statement: My current hours of work are...
   ○ About right
   ○ Less than I’d like
   ○ More than I’d like

12. If you answered 'Less than I'd like' to the question above, which of the following statements best describes the reason(s): (check all that apply)
   □ Employment status/hours wanted was not available
   □ I did not have the qualifications required
   □ I did not have the experience required
   □ I did not have the seniority required
   □ I don’t know
   □ Other ______________

13. In a 2 week period, what percentage of your shifts are 'night shifts?'
   ○ 25% or less
   ○ 26%-50%
   ○ More than 50%
14. How would you define your primary area of practice?

- Adult Medical
- Adult Surgical
- Ambulatory Clinic
- Oncology
- Paediatrics
- Psychiatry (includes mental health and addictions)
- Rehabilitation
- Sub-Acute
- 'Specialty' areas - NICU, Critical Care, Renal/Nephrology, OR, PACU, Transplant, Emergency, OB/Post partum, ICU
- Other (please identify) ________________

15. What school of nursing program did you attend?

- BCIT
- Capilano College
- Douglas College
- Kwantlen Polytechnic University
- Langara College
- North Island College
- Thompson Rivers University
- Trinity Western University
- UBC-Okanagan
- UBC-Vancouver
- University College of the Fraser Valley
- University of Northern BC
- UVIC-Camosun
- UVIC-Selkirk
- Vancouver Community College
- Vancouver Island University
- Other (please identify) ________________
1. Did your employer provide you with a general employee orientation* (e.g. - payroll/benefits info, general facility policies and procedures, etc.)?
   ○ Yes
   ○ No
   ○ Already received an orientation through previous employment (e.g. - LPN, nursing assistant, employed student nurse program*)

Respondents who answer ‘yes’ will be directed to section 2. Answer ‘no’ or ‘already received an orientation...’ will be directed to section 3.
Expanding the Evidence for New Graduate Nurse Transition to Practice – Section 2

1. Were you provided with an orientation specific to your unit?
   - Yes
   - No
   - Already received an orientation through previous employment (e.g. - LPN, nursing assistant, employed student nurse program*)

2. What was the length of your specific unit orientation?
   - 2 weeks or less
   - More than 2 weeks, but less than 4 weeks
   - 4 weeks to 6 weeks
   - More than 6 weeks

3. During your specific unit orientation, what percentage of your shifts were 'Preceptored* shifts'?
   - 25% or less
   - 26-50%
   - 51-75%
   - More than 75%
   - I did not receive any 'Preceptored shifts'

4. How well did your orientation prepare you for your role as a RN/RPN?
   - Very Good
   - Good
   - Fair
   - Poor
   - Very Poor

5. What do you feel was lacking from your specific unit orientation?
   Select all that apply
☐ My orientation was adequate
☐ My orientation was too short
☐ My orientation had insufficient content
☐ My orientation had inadequate support from my preceptor
☐ Other (please specify) ________________
1. During your transition from new graduate nurse* to your role as a RN/RPN, when was your greatest need for support?
   - Within the first month of practice
   - 1 - 3 months
   - 4 - 6 months
   - 7 - 9 months
   - 10 - 12 months

2. During times when you felt your greatest need for support, how often were you able to access support?
   - None of the time
   - Some of the time
   - Most of the time
   - All of the time
   - I never felt like I needed to receive support

3. Did you experience any bullying and/or harassment in the workplace as a new graduate nurse?
   - Yes
   - No

4. Did your organization provide you with a formal new graduate nurse transition program*?
   - Yes
   - No

Respondents who answer ‘yes’ will be directed to section 4. Answer ‘no’ will be directed to section 5.
1. What is/was the length of your new graduate nurse transition program?
   - One month or less
   - More than 1 but not greater than 3 months
   - More than 3 but not greater than 6 months
   - More than 6 months

2. Rank the following types of educational opportunities in terms of their helpfulness during your transition process. Mark N/A if that type of support wasn't part of your formal transition program.

<table>
<thead>
<tr>
<th>Educational Opportunities</th>
<th>Very helpful</th>
<th>Helpful</th>
<th>Moderately helpful</th>
<th>Not very helpful</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written materials</td>
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<tr>
<td>Classroom/theory</td>
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<td>Simulation/lab</td>
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<tr>
<td>'Hands-on'/'Bedside' learning</td>
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<tr>
<td>Inservices/workshops</td>
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<tr>
<td>Website/online materials</td>
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</tbody>
</table>

3. Rank the following types of 'people resources' in terms of their helpfulness during your transition process. Mark N/A if that type of support was not part of your formal transition program:

<table>
<thead>
<tr>
<th>People Resources</th>
<th>Very helpful</th>
<th>Helpful</th>
<th>Moderately helpful</th>
<th>Not very helpful</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>Preceptor*</td>
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<tr>
<td>Mentor*</td>
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<tr>
<td>New nurse transition program coordinator*</td>
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<tr>
<td>Clinical educator</td>
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<tr>
<td>Social support from other new graduates/peers</td>
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</tr>
</tbody>
</table>
Social support from Unit staff

4. Please list any other types of support you would like to have received during your transition program:

5. Respond to the following statement: My organization's new graduate nurse transition program helped me establish a sense of commitment to my organization.

   - Strongly disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly agree
1. I feel confident communicating with physicians.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

2. I am comfortable knowing what to do for a dying patient.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

3. I feel comfortable delegating workload* to others (e.g.- LPNs, nursing assistants).
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

4. I feel at ease asking for help from other RNs on the unit.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

5. I am having difficulty prioritizing patient care needs.
   - Strongly disagree
   - Disagree
6. I feel my preceptor* provides encouragement and feedback about my work.
- Strongly disagree
- Disagree
- Agree
- Strongly agree

7. I feel staff is available to me during new situations and procedures.
- Strongly disagree
- Disagree
- Agree
- Strongly agree

8. I feel overwhelmed by my patient care responsibilities and workload.
- Strongly disagree
- Disagree
- Agree
- Strongly agree

9. I feel supported by the nurses on my unit.
- Strongly disagree
- Disagree
- Agree
- Strongly agree

10. I have opportunities to practice skills and procedures more than once.
- Strongly disagree
- Disagree
11. I feel comfortable communicating with patients and their families.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

12. I am able to complete my patient care assignment on time.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

13. I feel the expectations of me in this job are realistic.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

14. I feel prepared to complete my job responsibilities.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

15. I feel comfortable making suggestions for changes to the nursing plan of care.
   - Strongly disagree
16. I am having difficulty organizing patient care needs.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

17. I feel I may harm a patient due to my lack of knowledge and experience.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

18. There are positive role models for me to observe on my unit.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

19. My preceptor* is helping me to develop confidence in my practice.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

20. I am supported by my family/friends
   - Strongly disagree
21. I am satisfied with my chosen nursing specialty.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

22. I feel my work is exciting and challenging.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

23. I feel my manager provides encouragement and feedback about my work.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree

24. I am experiencing stress in my personal life.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree
25. If you chose 'Agree' or 'Strongly agree' to question #24, please indicate what is causing your stress. (you may select more than one choice)

- Finances
- Child care
- Student loans
- Living situation
- Personal relationships
- Job performance
- Other (please specify) ______________________

Expanding the Evidence for New Graduate Nurse Transition to Practice – Thank You Page

Thank you for participating in our survey and contributing to the knowledge base regarding the transition of new nurses to practice. To enhance this data with some qualitative information, the research team will be hosting several focus groups on this topic for new nurses in BC. Focus group participants will receive $50 and there will be refreshments and light snacks during the focus group. The expected duration is 60 minutes. If you are interested in participating in a focus group please forward your contact information (Name, Health Authority, City, email) to pedther@telus.net. Thanks again!
I. List the top three skills/procedures you are uncomfortable performing independently at this time? (please select from the drop down list) list is at the end of this document.

1. __________________________
2. __________________________
3. __________________________
4. ________I am independent in all skills

II. Please answer each of the following questions by placing a mark inside the circles:

<table>
<thead>
<tr>
<th></th>
<th>STRONGLY DISAGREE</th>
<th>DISAGREE</th>
<th>AGREE</th>
<th>STRONGLY AGREE</th>
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<tbody>
<tr>
<td>1. I feel confident communicating with physicians.</td>
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<td>2. I am comfortable knowing what to do for a dying patient.</td>
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<tr>
<td>3. I feel comfortable delegating tasks to the Nursing Assistant.</td>
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<td>4. I feel at ease asking for help from other RNs on the unit.</td>
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<tr>
<td>5. I am having difficulty prioritizing patient care needs.</td>
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<td>6. I feel my preceptor provides encouragement and feedback about my work.</td>
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<td>9. I feel supported by the nurses on my unit.</td>
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<td>10. I have opportunities to practice skills and procedures more than once.</td>
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<tr>
<td>11. I feel comfortable communicating with patients and their families.</td>
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<td>STRONGLY DISAGREE</td>
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<tr>
<td>12.</td>
<td>I am able to complete my patient care assignment on time.</td>
<td>O</td>
<td>O</td>
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<tr>
<td>13.</td>
<td>I feel the expectations of me in this job are realistic.</td>
<td>O</td>
<td>O</td>
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<td>14.</td>
<td>I feel prepared to complete my job responsibilities.</td>
<td>O</td>
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<tr>
<td>15.</td>
<td>I feel comfortable making suggestions for changes to the nursing plan of care.</td>
<td>O</td>
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<tr>
<td>16.</td>
<td>I am having difficulty organizing patient care needs.</td>
<td>O</td>
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<tr>
<td>17.</td>
<td>I feel I may harm a patient due to my lack of knowledge and experience.</td>
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<tr>
<td>18.</td>
<td>There are positive role models for me to observe on my unit.</td>
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<tr>
<td>19.</td>
<td>My preceptor is helping me to develop confidence in my practice.</td>
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<tr>
<td>20.</td>
<td>I am supported by my family/friends.</td>
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<tr>
<td>21.</td>
<td>I am satisfied with my chosen nursing specialty.</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>22.</td>
<td>I feel my work is exciting and challenging.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>23.</td>
<td>I feel my manager provides encouragement and feedback about my work.</td>
<td>O</td>
<td>O</td>
<td>O</td>
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<tr>
<td>24.</td>
<td>I am experiencing stress in my personal life.</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>25.</td>
<td>If you chose agree or strongly agree, to #24, please indicate what is causing your stress. (You may circle more than once choice.)</td>
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<tr>
<td></td>
<td>a. NCLEX</td>
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<tr>
<td></td>
<td>b. Finances</td>
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<td></td>
<td>c. Child care</td>
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<td></td>
<td>d. Living situation</td>
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<td></td>
<td>e. Personal relationships</td>
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<td></td>
<td>f. Job performance</td>
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<tr>
<td></td>
<td>g. Graduate school</td>
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</tbody>
</table>
III. How satisfied are you with the following aspects of your job:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Very Dissatisfied</th>
<th>Moderately Dissatisfied</th>
<th>Neither Satisfied nor Dissatisfied</th>
<th>Moderately Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary</td>
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<tr>
<td>Vacation</td>
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<tr>
<td>Benefits package</td>
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<tr>
<td>Hours that you work</td>
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<td>Weekends off per month</td>
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<tr>
<td>Your amount of responsibility</td>
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<tr>
<td>Opportunities for career advancement</td>
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<tr>
<td>Amount of encouragement and feedback</td>
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<tr>
<td>Opportunity to work straight days</td>
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</tbody>
</table>

IV. Transition (please circle any or all that apply)

1. What difficulties, if any, are you currently experiencing with the transition from the "student" role to the "RN" role?
   a. role expectations (e.g. autonomy, more responsibility, being a preceptor or in charge)
   b. lack of confidence (e.g. MD/PT communication skills, delegation, knowledge deficit, critical thinking)
   c. workload (e.g. organizing, prioritizing, feeling overwhelmed, ratios, patient acuity)
   d. fears (e.g. patient safety)
   e. orientation issues (e.g. unit familiarization, learning technology, relationship with multiple preceptors, information overload)

2. What could be done to help you feel more supported or integrated into the unit?
   a. improved orientation (e.g. preceptor support and consistency, orientation extension, unit specific skills practice)
   b. increased support (e.g. manager, RN, and educator feedback and support, mentorship)
   c. unit socialization (e.g. being introduced to staff and MDs, opportunities for staff socialization)
   d. improved work environment (e.g. gradual ratio changes, more assistance from unlicensed personnel, involvement in schedule and committee work)

3. What aspects of your work environment are most satisfying?
   a. peer support (e.g. belonging, team approach, helpful and friendly staff)
   b. patients and families (e.g. making a difference, positive feedback, patient satisfaction, patient interaction)
c. ongoing learning (e.g. preceptors, unit role models, mentorship)
d. professional nursing role (e.g. challenge, benefits, fast pace, critical thinking, empowerment)
e. positive work environment (e.g. good ratios, available resources, great facility, up-to-date technology)

4. What aspects of your work environment are least satisfying?
   a. nursing work environment (e.g. unrealistic ratios, tough schedule, futility of care)
   b. system (e.g. outdated facilities and equipment, small workspace, charting, paperwork)
   c. interpersonal relationships (e.g. gossip, lack of recognition, lack of teamwork, politics)
   d. orientation (inconsistent preceptors, lack of feedback)

5. Please share any comments or concerns you have about your residency program:

______________________________________________________________________________

V. Demographics: Circle the response that represents the most accurate description of your individual professional profile.

1. Age: _______ years

2. Gender:
   a. Female
   b. Male

3. Ethnicity:
   a. Caucasian (white)
   b. Black
   c. Hispanic
   d. Asian
   e. Other
   f. I do not wish to include this information

4. Area of specialty:
   a. Adult Medical/Surgical
   b. Adult Critical Care
   c. OB/Post Partum
   d. NICU
   e. Pediatrics
   f. Emergency Department
   g. Oncology
   h. Transplant
   i. Rehabilitation
   j. OR/PACU
   k. Psychiatry
   l. Ambulatory Clinic
   m. Other: ____________________________
5. School of Nursing Attended (name, city, state located): __________________________

6. Date of Graduation: __________________________

7. Degree Received:  
   AD: ________  Diploma: ________  BSN: ________  ND: ________

8. Other Non-Nursing Degree (if applicable): __________________________

9. Date of Hire (as a Graduate Nurse): __________________________

10. What previous health care work experience have you had:  
    a. Volunteer  
    b. Nursing Assistant  
    c. Medical Assistant  
    d. Unit Secretary  
    e. EMT  
    f. Student Externship  
    g. Other (please specify): __________________________

11. Have you functioned as a charge nurse?  
    a. Yes  
    b. No  

12. Have you functioned as a preceptor?  
    a. Yes  
    b. No  

13. What is your scheduled work pattern?  
    a. Straight days  
    b. Straight evenings  
    c. Straight nights  
    d. Rotating days/evenings  
    e. Rotating days/nights  
    f. Other (please specify): __________________________

14. How long was your unit orientation?  
    a. Still ongoing  
    b. ≤ 8 weeks  
    c. 9 – 12 weeks  
    d. 13 – 16 weeks  
    e. 17 - 23 weeks  
    f. ≥ 24 weeks  

15. How many primary preceptors have you had during your orientation?  
    ________ number of preceptors  

16. Today’s date: __________________________
Drop down list of skills

Arterial/venous lines/swan ganz (wedging, management, calibration, CVP, cardiac output)
Assessment skills
Bladder catheter insertion/irrigation
Blood draw/venipuncture
Blood product administration/transfusion
Central line care (dressing change, blood draws, discontinuing)
Charting/documentation
Chest tube care (placement, pleurovac)
Code/Emergency Response
Death/Dying/End-of-Life Care
Dobhoff/NG care/suctioning/placement
ECG/EKG/Telemetry monitoring and interpretation
Intravenous (IV) medication administration/pumps/PCAs
Intravenous (IV) starts
Medication administration
MD communication
Patient/family communication and teaching
Prioritization/Time Management
Trach care
Vent care/management/assisting with intubation/extubation
Wound care/dressing change/wound vac
Unit specific skills ________________________________________
### Appendix G: Data Analysis Table (Table 12)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Literature Review</th>
<th>Qualitative Data</th>
<th>Quantitative Data</th>
<th>Recommendations for Toolkit</th>
</tr>
</thead>
</table>
| Education (pre-registration to transition) | - New Graduates felt there was a deficiency in clinical practice opportunities during undergraduate education (3) | - Would suggest future curriculum has more practical skill focus, especially in specialty areas. Differences in New G skills depending on where they went to school | - New graduates nurses reported hands-on/bedside learning and in-services/workshops as being the most helpful during transition | **Strongly Recommended:**
|                                  | - Open-ended qualitative comments revealed that orientation could be improved by including fewer formal classes (7) | - New Graduates valued training opportunities, but some comments related to the sessions being offered at a time they were unable to participate, or they were repetitive of things previously learned in school | - A significant positive linear relationship was found between the total transition score and the helpfulness ranking attributed to in-services/workshops. Each 1-unit increase in the value of the helpfulness ranking attributed to the simulation/lab was found to be associated with an increase of 0.55 points (95% CI: 0.01 to 1.09) in the expected value of the support score. Furthermore, each 1-unit increase in the value of the helpfulness ranking attributed to the in-services/workshops was found to be associated with an increase of 1.26 points (95% CI: 0.60 to 1.92) in the expected value of the support score. | - New Graduate education delivered during a formal transition program should be of a practical nature such as hands-on/bedside learning opportunities and in-services/workshops. - Formal classroom type learning should be limited  
**Recommended:**
- Encourage undergraduate programs to increase the opportunities for practical skill focus |
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<tbody>
<tr>
<td>Support/ Satisfaction</td>
<td>- New Graduates who received a longer orientation that met all of their needs were more satisfied in their current position (5)</td>
<td>- New Graduates: - support from ‘key people’ rather than system at large.</td>
<td>- The group of nurses who attended an orientation lasting 4 weeks or more had a significantly higher transition score from the other two groups, as well as a higher ‘support’ sub-scale score</td>
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<td>- Importance of preceptors receiving formal education and reported outcomes that included enhanced preceptor satisfaction (5), preceptor retention (6), New Graduate satisfaction with their preceptoring experience (6), and New Graduate retention (3).</td>
<td>- New Graduates: recommend preceptor training. Nurse Managers commented there is a training day but typically they just need to take whoever shows interest.</td>
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<td>Strongly Recommended:</td>
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<td>- All articles involving mentorship programs demonstrated positive outcomes regarding New Graduate retention (3,3)</td>
<td></td>
<td>- Significant positive linear relationships were found between the support score and the helpfulness ranking attributed to the mentor and to the unit staff, respectively. The higher the helpfulness ranking attributed by nurses to these two types of support people, the higher their support score</td>
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<td>- Regular meetings with a mentor positively influenced the likelihood of the mentor being a stress reducer (p=0.001), ‘clicking’ with the mentor (p=0.001), and providing guidance and support (p=0.001). In addition, mentors of an older age were more likely to be stress reducers (p=0.005) and provide guidance and support (p=0.100) (6)</td>
<td></td>
<td>- The data suggested a significant positive relationship between ability to access support when needed and the total transition score but only for the nurses who received their New Graduates specific workshops beyond just the typical orientation period. This would suggest that New Graduates who are in formal transition programs with workshop/education opportunities beyond the typical orientation period are more readily able to access support when needed</td>
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<td>- Peer support and providing opportunities for New Graduates to meet and discuss their transition experiences with each other was a theme in four qualitative articles (3,7)</td>
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<td>- Provide formal preceptor education and make this training a requirement</td>
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<td>- Lowest levels of satisfaction and highest levels of stress at 6-9 months post hire (5)</td>
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<td>- Provide formal support to New Graduates for at least 6 to 9 months post-hire</td>
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<td>- Satisfaction decreases during the first stage of transition, and then significantly increases towards the end of the first year (4,6)</td>
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<td>Recommended:</td>
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New Graduate Nurse Best Practices
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| Competency/             | - New Graduates competence improves over the course of a transition program (5,4,7) | - Concerns New Graduates do not receive enough shifts to consolidate their practice. This contributed to feeling of being 'new' for quite some time after hire | - The organizing/prioritizing sub-scale score was found to be significantly linearly related to the average number of hours worked in the past 2 weeks. After taking into account employment status, the mean value of the organizing/prioritizing score for the nurses who worked an average of 49 hours or more in a 2 week period was 0.94 units higher than the mean value of the score for nurses who worked 48 hours or less during that period (95%: 0.28 to 1.60) | Strongly Recommended:  
  - Ensure all New Graduates participate in a formal transition program as this assists in skill consolidation  
  - Strive to provide New Graduates with at least 49 hours of work in a two week period during their first year of practice |
<p>| Critical Thinking       |                                                                                   |                                                                                   | - There was also a significant difference between the group of New Graduates who participated in a formal transition program and those NGs who did not, with New Graduates who had gone through a formal transition program having significantly higher organizing/prioritizing sub-scale scores (P-value=0.0254). | Recommended:                                                                                     |</p>
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<td>Workplace Environment</td>
<td>- In conjunction with transition, new graduates described a lack of acceptance and</td>
<td>- Some Nurse Manager comments related to New Graduate culture</td>
<td>- The more the bullied nurses in our survey were able to access support, the better their total transition score; The more the non-bullied nurses in our survey were able to access support, the better their total transition score; When comparing bullied vs. non-bullied nurses, improvement in the total transition score was better in the non-bullied group vs. the bullied group</td>
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<td>respect, and an insensitivity of experienced nurses to their needs for continued</td>
<td>– There is a lack of team oriented practice. Saw many New Graduates trying to do it</td>
<td>- Significant positive linear relationships were found between the total transition score and the helpfulness ranking attributed to the mentor and to the unit staff, respectively</td>
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<td>development in time management skills (6)</td>
<td>all and not delegate or ask for help. Yet some New Graduates commented they did not</td>
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<td>- New Graduates working on clinical units identified as ‘Healthy’ or ‘Very Healthy’</td>
<td>feel as supported as they would like. Some New Graduates felt they had to do it on their own because that was what was expected</td>
<td>- New Graduates that experienced bullying/harassment had better transition scores if they participated in a formal transition program as compared to bullied New Graduates who did not participate in a formal transition program.</td>
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<td>work environments experienced less reality shock as they transitioned to practice (7)</td>
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**Recommendations for Toolkit**

- Strive to ensure clinical unit work environments are ‘Healthy’
- Experienced staff nurses should be provided training and resource on how to be supportive to New Graduates
- Zero tolerance for bullying policy

**Recommended:**