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From Pilot to Established Practice: Reflecting on the 20-Year Journey of Implementing a Collaborative Learning Unit practice education model in Victoria, British Columbia

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Introduction

Practice-based, or workplace-integrated, learning is a foundational component of baccalaureate of science in nursing (BSN) programs. The opportunity to develop, integrate, and consolidate knowledge, skills, and competencies in current clinical environments with practice teams is essential for preparing students for the role of the professional registered nurse (RN) (Benner et al., 2009). Nurse educators and practice partners continue to seek ways to ensure curricula are current and that graduates are prepared for transition into contemporary practice environments. However, concerns of disconnection and disparity between academia and practice, framed in the literature for decades as the concept of a theory-practice gap, endure (Greenway et al., 2019).

The University of Victoria (UVIC) School of Nursing (SON) and Island Health, a regional health authority in British Columbia (BC), initiated the Collaborative Learning Unit (CLU) practice education model in 2003, based on the Dedicated Education Unit (DEU) model, as an innovative solution to accommodating increasing numbers of BSN students and addressing challenges in securing sufficient numbers of preceptors (Lougheed & Galloway-Ford, 2009). As part of a larger evaluation study beginning in 2017, we conducted a critical document analysis to answer the following research question: What were the contextual influences that shaped development of the CLU, and how did they contribute to the establishment, expansion, and sustainability of this model? In this article we describe the evolution of local nursing education programs; explore academic and health system contextual issues; and critically reflect on the historical, disciplinary, economic, and political influences that contributed to how the model was developed and is currently functioning.

Evolution of Nursing Education Programs in Victoria

Beginning with the Royal Jubilee Hospital School of Nursing (1890–1983) and the St. Joseph's Hospital SON (1900–1981), many generations of RNs in Victoria engaged in hospital-based education through a service-oriented model (Pearson, 1982; Pijl-Zieber et al., 2014). Camosun College began offering a diploma in 1980 as a two-year entry-to-practice program. The UVIC SON was established in 1976 to provide access to baccalaureate education for diploma nurses. Beginning in 1993, UVIC, Camosun College, and other colleges in the province initiated the Collaborative Nursing Program to widen access to BSN education across the province and address the shift to BSN as the entry-to-practice academic requirement (Pringle et al., 2004; Scaia & Young, 2013). The resulting shared BSN program (the first five terms at Camosun and next four terms at UVIC) continues today in Victoria within the context of a collaborative partnership with four other colleges in BC and the Northwest Territories.

Concurrently, health systems in BC were regionalizing, from 52 health regions in 1997 to 7 currently (Lewis & Khouri, 2004). In Victoria, there was a transformation from three local hospital boards and a public health board through several iterations to the current Island Health, responsible for health services across Vancouver Island and a large adjacent rural and remote section of the province. Nursing services and administration were realigned throughout this time, altering mechanisms that supported academic and practice partner collaboration. Currently, Island Health Professional Practice is the organizational portfolio that supports student practice education and new graduate transition. This evaluation study was conducted collaboratively by members of the UVIC/Camosun College faculty and Island Health Professional Practice and Research Capacity Building.

Situating the History of the Collaborative Learning Unit Model

Most literature identifies the first DEU model as developed and named by Kay Edgecombe and Judy Gonda in 1997, at Flinders University in South Australia (Edgecombe et al., 1999; Gonda et al., 1999; Grealish & Carroll, 1997). The stated goal for developing the DEU was to accommodate increasing demand for practice placements from diverse educational programs, each with unique curricula and practice-oriented learning goals (Edgecombe et al., 1999). Although most literature situates the development of the DEU in Australia, we found that key aspects of the model were based, in part, on an earlier innovation at McMaster University (Canada) by Kirkpatrick et al. (1991) (see Grealish and Carroll, 1997). McMaster named the innovative model a collaborative model because faculty and a psychiatric hospital team worked collaboratively to enrich the hospital learning environment for students.

Further adaptation of the DEU model has occurred primarily in the United States, followed by Australia and New Zealand (Edgecombe et al., 2014). Scarcity of resources was repeatedly identified as an impetus for development of the DEU model across these contexts. Although each of the countries identified above have unique funding and governance structures for health care and professional education, impacting how elements of the model developed, a common motivation was the ongoing challenge of access to quality practice placements (Edgecombe et al., 1999; Gonda et al., 1999; Grealish & Carroll, 1997).

The CLU model was developed in Victoria during a period of increased attention to RN education, following multiple national and provincial commissions and reports that emerged from concern about an anticipated nursing shortage (Sibbald, 1998). Governments were reporting concerns about the sustainability of health care systems across Canada, specifically related to health human resources, of which nurses are a significant majority. This political context included increased regulation and a move to shared scopes of practice across nursing designations and health care professions (Lewis & Khouri, 2004). Fears of impending nursing shortages and operationalization of longer pre-licensure education programs, with related increased clinical placement demands, presented challenges that academic and practice leaders worked together to address.

Methodology

This critical document analysis was one phase of a larger project examining the impact of the CLU model on developing cultures of learning and inquiry in practice settings. Documents, as social artifacts, can provide context, illuminate historical roots, and trace change and development (Bowen, 2009). Health care and academic institutions produce and manage volumes of documentary records and communication texts that provide preserved representations of daily operations, routines, decision-making processes, and professional practices (Miller & Alvarado, 2005). Text artifacts for this analysis included evaluation reports, briefing notes, spreadsheets of annual data, information tools, email communication, meeting minutes, practice team preparation resources, and presentation materials. Documents were solicited from current and past UVIC SON faculty and practice placement coordinators and Island Health Professional Practice leaders. The texts were collated both digitally and in paper format. A document analysis data extraction tool was constructed that included authorship, purpose, process, and key recommendations. We paid particular attention to the characteristics of CLUs and the processes that supported development, implementation, and sustainability.

We employed Bowen's (2009) document analysis procedure, which included a three-phase iterative process of skimming (superficial examination), reading (thorough examination), and interpretation. Analysis was conducted from a critical interpretive approach, and texts were examined for key themes and patterns. A research assistant completed the initial data extraction. Two researchers reviewed the documents, extracted data, and conducted the analysis. Additional members of the team reviewed the analysis to provide further context and insight from their perspectives as senior practice, policy, and academic leaders. The provincial health system and national nursing and nursing education contexts were examined in supplementary reports and documents.

Findings

We have organized our analysis chronologically, from early discussions conceptualizing the model, through implementing the pilot project, to expanding, establishing, and sustaining the model. We recognize that although they are presented narratively as linear phases, they are not separate or discrete (Pluye et al., 2004).

Conceptualizing a Collaborative Learning Unit

The DEU concept was introduced to faculty in 2001 by the SON director, who was collaborating with the health authority chief nursing officer.[1] In the spring and fall of 2001, three open meetings were held with staff nurses, faculty, students, clinical resource nurses, nursing programs directors and deans, and health authority nursing administrative and union representatives. The meetings generated interest in developing this model to complement the teacher-led and preceptorship models then in use. Following an invitation for further feedback, local health system and academic stakeholder groups agreed to continue with a development process. During this time, UVIC faculty corresponded with Dr. Judy Gonda, one of the DEU leads from Australia (December 2001 to January 2002), and facilitated a site visit by Dr. Gonda. Following initial exploratory meetings, a steering committee was formed in June 2002 with academic, practice, and nursing union representatives, and terms of reference were developed. Representatives from UVIC, other college partners, and two health authorities met and committed to piloting the CLU model in the local context. The development of the practice education model was positioned as a response to the anticipated nursing shortage through increasing the number of local nursing education seats. Planning documents described an intentional and focused process, with high engagement across the practice and academic partners.

A proposal for funding to develop two CLUs with two educators and 15 to 16 students[2] in their final year of the BSN program was collaboratively developed and submitted to the BC Ministry of Health Services Planning in response to a call for one-time end-of-fiscal partnership funding in 2002. The initial proposal included commitments to academic and practice coordinators for introducing the model, planning logistics, scheduling (e.g., developing student rotations), offering orientation workshops, and designing evaluation processes. Stated potential benefits for the practice partner identified in the proposal included enhancing placement coordination, sharing student preceptorship responsibilities across more staff, developing stronger rapport between faculty and staff, expanding learning opportunities for students, increasing faculty support on the units, and creating and maintaining a learning culture in the hospital unit. These benefits, it was

[1] Anne Cooke (2004) was the first chief nursing officer in BC in 2000.
[2] When numbers varied in documents, we included both.

argued, were necessary to address challenges related to the nursing shortage, the questionable sustainability of the preceptorship model, and an ongoing perceived gap between nursing practice and education.

In September 2002, the BC Ministry of Health Services Planning requested a revised proposal for a reduced pilot of one CLU unit (one faculty, one unit, and seven to eight students), with half of the funds distributed to the university to support a dedicated faculty position and half to the health authority to cover orientation costs and support positions. This revised proposal was approved, providing resources for staff development, a project coordinator, and evaluation of the six-week pilot. The budget supported the following specific resources: two course releases for the project coordinator, two course releases for a faculty member to conduct an evaluation, four-hour orientation workshops for 45 RNs, one half-time clerical support position, and salary enhancement for two practicum resource nurses (PRNs).

The goals of supporting baccalaureate education as the entry-to-practice requirement and promoting an expanding vision for professional nursing practice were evident in the planning phase of CLU development. Significant care was taken in the proposal to frame nursing and nursing education in an academic context, shifting away from language like *training* toward *nursing practice*, *competencies*, and *experiential learning*. There were expressed concerns from educators to "avoid government rhetoric about nursing" to return to former hospital-based, apprenticeship models (director and project coordinator, emails, June 2002). Underpinning the CLU model was a vision for nursing as a practice of inquiry, situating nursing staff, faculty, and students as co-learners. Creating a positive and transformative learning environment for all was important and thus was reflected in the revised model name, CLU, rather than DEU. The proposal reflected a desire to align with government objectives in relation to producing essential workforce members while upholding academic and disciplinary values of inquiry. We noted in the communication between academic and professional practice project leads that conceptualization of the model and the identification of resources (including liaison nurse role description, workshop content outlines, and academic role statement) involved close collaboration with health authority professional practice consultants.

Implementing the Pilot Project

An implementation working group was established, integrating unit leadership, staff, students, and UVIC faculty and project leads. Two faculty were assigned to begin planning introductory and mid-term workshops for faculty and students. The pilot was planned and implemented in a compressed period of time but with carefully selected students and a unit and staff that had a reputation for being a supportive learning environment. Although planning was underway, government funding was not approved until late January 2003. With students entering into practice in mid-February, there was an extremely short window to launch a new initiative involving two large complex organizations. The pilot was implemented with students identified as strong (e.g., "they were practice ready before they even started—they were very strong students" [notes from program coordinator]), seasoned preceptors, funded orientation to the model, a supportive manager with extensive nursing education experience, expert faculty, and a new dedicated unit nurse support role. The manager requested only CLU students be placed on the unit during the pilot rather than having second- or third-year students with final practicum students. Therefore, other than the expedited implementation process, the pilot was conducted under mostly optimal conditions. Overall, the feedback was positive as students and faculty felt like they were

more a part of the unit team and the nurses felt they were bearing less of a teaching burden than if they had been preceptors (Purkis & Lougheed, 2003).

The practice and education contexts at that time were characterized in the documents as challenging. Emails, meeting minutes, and reports revealed a perspective that the CLU pilot was being implemented in a system "with all the changes" occurring simultaneously. In particular, system-wide strategies were being implemented to address ongoing acute care occupancy pressures, including bed mapping, bed teams, and patient placement teams (implementation working group minutes, October 2003). Concerns were raised regarding the challenge of staff assuming added CLU responsibilities in addition to system change. However, the health authority leadership was interested in concurrently creating a learning culture within the hospital setting, and therefore supporting students was considered an integrated aspect of professional practice. The steadily increasing student numbers and distribution across many worksites and agencies presented challenges for academic educators. The Victoria intake of BSN students increased from 66 students per year in 2003 to 90 in 2004, resulting in ongoing difficulty establishing and maintaining sufficient preceptor-student dyads.

Evaluation of the pilot was comprehensive, highlighting successes and areas requiring additional resources. The importance of building trust between staff, students, and faculty was noted (evaluation report; Purkis & Lougheed (2003); academic and practice project leads, emails, February-May 2003). The value of the CLU model for enriching learning, receiving/giving constructive feedback, taking responsibility for learning, and valuing diverse perspectives was also documented. At this time, "every indication was that this is a viable model" (UVIC Research Day presentation, 2003). However, the small student and faculty sample was noted to be a limitation and a comparison of the new model with the existing preceptorship model was recommended. Throughout implementation, additional support for staff, student and faculty development, including the PRN role, was considered critical until the model stabilized with policies in place.

Expanding to Additional Practice Sites

After the pilot and initial funding reports were completed, the Steering Committee examined the possibility of expanding across the acute care units at the three hospitals on southern Vancouver Island. Four new CLUs were developed by January 2004 and an additional three by September 2004, for a total of eight CLUs. Expansion units were carefully selected to provide a variety of learning opportunities for students using the CLU model. Expansion was promoted by the health authority based on the positive pilot evaluation. Specifically, the benefits for the health authority included the value of having students and faculty integrated into the unit, reduced sole responsibility on point-of-care nurses and therefore reduced preceptor burnout, and the potential to increase student placements (Purkis & Lougheed, 2003). Because the health authority was the major employer for BSN graduates, it was keenly interested in the preparation of graduates who would be considered both practice and job ready (Lougheed & Galloway-Ford, 2009; Wolff et al., 2010).

Different organizational mandates quickly became a point of discussion. As the health authority pressed for further expansion of the CLU to new areas, questions emerged regarding philosophies of learning and pedagogy. Academic educators' understanding of nursing as a practice of inquiry was, at times, distinct from hospital staff's expectations that students were "doing things" (member of steering committee and member of implementation working group, April 2003 emails). Meeting notes also reflected faculty members's intentions to demonstrate that

students could learn *and* do in an inquiry approach to practice. To shift perspectives, the orientation of unit nursing teams in the pilot included this essential pedagogy. Staff were informed that student activities were guided by course learning goals rather than by meeting a specific number of practice-hour benchmarks or the demands of client care. A focus on learning goals over time and tasks resulted in commitments to ensure students attended practice when the most resources, care experiences, and opportunities for peer learning were available. The concept of nursing as a practice of inquiry was central to co-creating a positive learning environment for everyone, students and staff.

Within less than a year from the pilot project, there was evidence that sustaining and expanding the CLU model, with increased presence of academic faculty on units and additional orientation and learning support needs, would require additional resources. Associated activities included developing policies and updating faculty orientation materials and unit staff materials (e.g., preparing an additional section for the preceptor handbook about the CLU model). We noted communication between the SON director and the project coordinator about the need to develop a second proposal for further resources that would be required if the number of units was further expanded (e.g., faculty course release for project coordination). Ongoing resources were considered to be critical in terms of establishing processes for the sustainability of the CLU model. Once these processes were established, it was anticipated that operations would then segue into an ongoing model for sustainability. The SON director reflected:

> Many people have assumed that because there is a "report"—and one with lovely red covers!—that I am assuming there's nothing more to be known or studied about the CLU project. Nothing could be further from the truth! There is a great deal more that might be known about the CLU as an alternative practice education model. (email to project coordinator and associate director, July 2003)

We noted that intentional selection of potential units and areas of practice appropriate for student learning was important in the subsequent expansion of the CLU model to other areas of practice. For example, interest in working with community placements emerged very early in communication, reflecting the philosophical and conceptual underpinnings of the curriculum. The identification of suitable units also included discussions of the appropriateness of specialty units for BSN student learning and how to determine the "fitness" of a unit. Practically, expanding to specialty units served to fulfill the promise of an increased number of placements (student numbers) and also meet workforce needs of the health authority; however, concerns were expressed in relation to fulfilling the regulatory mandate of a generalist BSN education.

Values related to the student experience also shifted between the pilot project and expansion. Communications (emails and meeting minutes) from fall 2004 onward reflected some concern that students were functioning in workload positions, similar to the service model of previous decades, including replacing absent staff. This was a broader concern across the province, and a practice education guideline initiative was launched to address these shared issues. The learning for CLU students was reported not to be as in-depth as with the preceptor model, and the lack of consistent evaluation did "not paint a picture of progress." Academic faculty could "only catch people for a short while" to obtain information about student competency and learning, and found that this feedback primarily tended to be positive.

The need for clarity in relation to the responsibility for evaluating student practice, in particular students who were struggling to meet learning outcomes, was noted as a challenge early

on. In a review of dilemmas, educators and practice partners discussed issues of trust, including relying on hard-to-extract feedback from multiple unit staff nurses, which was perceived by faculty as evaluation by proxy and with second-hand information (Purkis & Lougheed, 2003). One academic leader expressed hesitation about what she felt was an emerging direction to have the CLU model replace the preceptorship model entirely. She was hesitant to suggest that all students could do all of their final practice courses in a CLU:

> We do not yet know how well a CLU works for students who need extra support or who may be in trouble. We have not yet worked out the bugs with regard to student evaluation. I am uncomfortable with the possibility of a really weak student not getting the evaluation and guidance they need. So, not all CLU all the time, at least not yet. (associate director of undergraduate education to project coordinator and practica coordinator, emails, June 2003)

Expanding the CLU model was understood as a way of changing the culture of nursing education from a hospital or diploma service-oriented apprenticeship to a competency and inquiry-oriented academic education. Practice readiness was conceptualized in broader terms, with a commitment to knowledge-informed practice. These ideas were also linked to debates regarding what "counts" as practice hours and learning opportunities within a CLU placement (academic project lead and associate director, emails, July 2003). As one example, documents revealed differences of opinion among academic and practice partners about implementing night shift learning into the CLU schedule. This modification was proposed for reasons such as exposing students to nursing work during this time and further increasing the number of students that could be accommodated on a unit. Feedback from students suggested that this would allow them more opportunity to feel like they were part of the nursing team and work outside school. Arguments against this proposal were that optimal learning would not take place during these times and that students would increasingly be positioned as workload or sick call coverage, again a regression to the former apprenticeship model. Records from 2007 show that student schedules were adapted to mirror nursing schedules (two 12-hour days, two 12-hour nights, and four to five days off, with no more than two students per shift on each unit).

Becoming Established Practice

Between 2003 and 2020, the number of CLUs gradually increased from 1 to 22, as the size of the student cohort increased from 60 to between 150 and 170.[3] CLUs now accommodate over 85% of third- and fourth-year BSN placements in southern Vancouver Island. All units that were identified as appropriate for the CLU are primarily hosting students in this way, except when substantial changes in patient population or unit conditions may impact student learning. In other words, model implementation has reached saturation from the context of acute care units (Hutchings et al., 2017). Fifteen percent of students are supported by preceptors in practice settings, with capacity for smaller numbers of students or when students require more individualized learning support. During the time from pilot to established practice, there has been a complete shift in how students are placed. While the pilot project focused on carefully selecting students for the CLU, the majority of students are now placed in the CLU, with students carefully considered for preceptorship. Hybrid placements occur—for example, when a student is placed for a period of time with a preceptor within a CLU unit—to meet specific learning needs.

[3] Fluctuations are noted in practice courses depending on the number of students who transfer from partner colleges.

Documentation from 2004 to 2020 shifted primarily to embedded information, such as in the Practice Education Handbook that is edited before each practice course. Regular CLU-focused meetings continued until 2007. During this time, collaborative placement principles were developed to support the student placement process; however, they were not specific to the CLU model. Beginning in 2007, the health authority also centralized all practice placement coordination across professions through HSPnet, a national web-based platform for managing practice education placements in the health sciences. A regional Practice Education Network was introduced in 2008 and practice education leadership committee meetings, with key contacts from all health education programs, were planned three times per year to address student placement processes and issues.

By 2009, the UVIC academic practice coordinator role absorbed the responsibility of being a liaison with the health authority. A letter was sent from UVIC to Island Health in March that summarized the outcomes of a meeting to address issues related to student placements and outlined additional strategies for sustainability, acknowledging that these were not new but had been successful in other units. These strategies addressed the consistency of faculty presence, regular meetings to ensure communication, orientation processes, and support for existing and potential units. Later in 2009, a report was prepared by the practice education coordinator to update the SON on CLU capacity in the health authority, ongoing CLU development, and evaluation processes. Several key model adaptations were identified in this report, including alternative orientation and communication processes. This report also incorporated a specific section on sustainability, recommending faculty consistency and presence.

Faculty and practice partners now consider the CLU to be an established practice education model. At present, faculty receive information about the CLU as part of their term orientation. A DVD was developed for use in professional development workshops, with interactive scenarios addressing common teaching challenges. Students complete a learning activity about the features of CLU and preceptorship models as part of orientation in their first practice course at UVIC. The Practice Education Handbook includes information for RNs on roles and responsibilities for the student, nurse, and faculty triad. Examination of the CLU information sheets and practice education handbooks reveals only minor revisions. Over this period of time, there were no major changes to student placement processes, teaching and learning processes, or unit information. Orientation for RNs remains a documented challenge as they are impacted by heavy workloads, vacant positions, and devolution of funding for unit resources, including their time to attend orientation sessions and replacement of this time. Other strategies have been employed for sharing CLU orientation information, such as faculty attendance at staff meetings, bulletin board notices, flexible visits to units, faculty involvement prior to the start of the practice term, and development of unit-specific CLU manuals.

Sustaining the Model

Even though sustainability issues were evident in the earliest documents, we did not identify frameworks or policies that were developed specifically to support CLU or evaluation research in regards to sustaining a shared vision for a positive learning environment. Specifically, the goals of developing cultures of inquiry and promoting shared learning were not reviewed. By April 2004, when the number of CLUs had expanded to five, it was becoming clear that the model presented different requirements than the preceptorship model for both practice and academic institutions. For example, questions and dilemmas arose regarding the workload percentage for academic faculty. Faculty consistently assigned to practice courses did not have any workload left

to teach theory courses. This presented a tension as consistent presence of faculty was considered to be a key element of success and a key structural feature (Lougheed & Galloway-Ford, 2009). As academic requirements for faculty increased and as graduate programs were established, it also became more challenging for them to sustain their familiarity with clinical settings.

Another example of a sustainability-related issue was the time-limited design of the role of the designated unit nurse, described as an essential component in the DEU literature (Edgecombe et al., 2014). This unit lead was initially paid at a higher level during student practicums, negotiated with BC Nursing Union involvement. Early documents reflected the view that this role was temporary and that functions related to the designated unit nurse could be eventually assumed by clinical educators on the units (i.e., providing orientation) or academic practica coordinators (i.e., developing shift rotation schedules). However, with austerity measures in the public sector, advanced practice nursing roles were reduced, and these nurses were assigned additional global administrative and institutional duties. These practice nurses assumed increasingly large spans of responsibility, a trend seen across Canada as clinical units were amalgamated or eliminated. Simultaneously, academic practice placement support was also reduced. These reductions in support positions manifested in reduced CLU orientation processes (from an initial four-hour workshop, to shorter workshops, to 20-minutes sessions, to online modules), resulting in lost opportunities to establish role clarity and communication for faculty and unit staff. In 2017, a small working group was launched to rejuvenate processes (including updating information documents and updating communication about unit assessment) related to sustaining quality practice placements, including both preceptorships and CLUs. Shortly after this work began, funding was received for this study.

Discussion

Contextual and sociopolitical influences led to the development of an innovative model for RNs' clinical education and widespread local adoption of this model over a 15-year period. A number of factors contributed to the endurance of this change. Most importantly, the CLU model was developed within the context of an academic-practice partnership involving one health authority and one BSN program. This differs from most related literature, including the 1999 publications from Australia, where the context involves multiple schools competing for placements. Many health authority professional practice team members over this time were graduates of the UVIC SON undergraduate and graduate programs and participated in SON committees. Many UVIC faculty are also current or former employees of the health authority and maintain close relationships with a range of practice teams and nursing leaders, and some conduct research in collaboration with the health authority. These partners have successfully co-developed a number of initiatives over the years in the shared and synergistic interest of providing high-quality education, motivated by the reality that UVIC and Camosun College BSN Program is the primary supplier of new graduate RN hires for the health authority.

Academic-practice partnership continues to be at the core of the model (Edgecombe et al., 2014). Structural resources are necessary and depend on high-quality academic-practice partnerships at all levels of the organizations, shared visions for nursing practice, and generous cross use of resources to support a culture of learning and improved patient experience. DEUs are well established and share enough common characteristics that development of evaluation tools for the model is important. Evaluation is needed to identify the key facilitators and barriers to effective student learning, the contribution of the academic *presence* to the quality of care, and what patient outcomes are improved through engagement with academics, students, and clinicians

at point of care. Of central concern is the need to evaluate the goals of developing a culture of inquiry and shared learning across practice placement sites within the health authority.

The health authority currently supports health students from over 50 postsecondary institutions, and UVIC supports a collaborative BSN partnership with four colleges across diverse geographies. This has resulted in increasing partnership commitments for both institutions. Collaborations hold many benefits but they also introduce challenges, such as maintaining effective communication, honouring decision making processes, and negotiating different interests. Concurrently, many other student-focused initiatives were launched, including an increased focus on interprofessional education and practice and a shared simulation centre, both further extending demands for collaboration. Alexander et al. (2003) suggested that because considerable effort is required by partners to sustain trust, these increased demands for additional collaboration may have distracted from the initial goals of the CLU partnership.

We noted that, despite an enduring academic-practice partnership through two decades of change and innovation in both health and postsecondary education sectors, nursing educational challenges remained remarkably the same, and problems were unresolved. The tone of health care reports of the early 20th century were of looming nursing and nurse educator shortages, and shrinking resources for delivering quality nursing education. The scarcity has only increased and is drawing significant attention during the COVID-19 pandemic. These resources included time, funds, and personnel (e.g., mentors, educators, and qualified preceptors). Themes in the documents lead us to suggest that the original intents, established in a project summary document as key structural features of the model, have not been sustained as designed (Lougheed & Galloway-Ford, 2009). Some of the resources necessary to expand and sustain the CLU model either never fully materialized following the pilot study or were reduced or eliminated in years of budget reductions required by provincial government ministries in both sectors.

However, it may be unreasonable to think that system interventions remain static over time with substantial changes in context. Assumptions are frequently made with innovations that they become self-sustaining, with subsequent reduction or discontinuation of financial, infrastructure, and time support, and ongoing communication mechanisms, when in fact resources are required to monitor and continually improve. Pluye et al. (2004) suggest that the nature of sustainability is recursive and reflexive, requiring continual reconceptualization of the trajectory of the intervention. Established practices and programs thus need to be renewed and updated to ensure continuity. Although the CLU model has endured, it is time for the academic-practice partnership to renew and update shared understandings, contributions, and processes. Recent literature about the DEU model highlights the critical importance of continually adapting to varied and changing contexts and building in sustainability considerations across academic-practice partnerships. Edgecombe et al. (2014) cautioned that the practicalities of maintaining the DEU model cannot be underestimated, and thus there is a need for a "greater balance in focus between the vision, the how to, the doing (the teaching and learning), and the day-to-day administration, which is a rarely acknowledged part of DEU management" (p. 206). These practical operational elements, within the context of partnerships, require ongoing resources to administer, evaluate, and future think.

Challenges to sustainability of the CLU model may be framed as essential drivers for re-evaluating nursing education organizing and funding structures. The CLU model now accommodates over 85% of senior BSN consolidated practice placements in southern Vancouver Island. Student placement data patterns indicate that without this model, it would be challenging to return to the preceptorship model, particularly as many of the initial contextual factors endure.

In other words, without resourcing CLUs, the model of education breaks down, the intended goals are not achieved, and the quality of education and subsequent new graduate readiness for practice is reduced. One would also assume that sustainability would be self-perpetuating, with most UVIC graduates being employed by Island Health; yet because of gradual erosion of model elements, there has not been a sustained "embedding" of the pedagogical approach, including the shared responsibility for teaching, RN confidence in coaching and evaluating students, and knowledge of the curriculum as a whole. Sustainability issues and evaluation of intended goals, such as a culture of inquiry and learning, require collective academic and health authority attention.

Limitations

Our analysis is limited to the documents that we accessed related to the CLU model. We recommend that nurse educators develop systematic ways of gathering and archiving documentation about key pedagogical innovations to facilitate analysis of progress and lessons learned, including email communication. Additional and more in-depth qualitative data about experiences with the CLU model could be obtained through interviews with educators, clinicians, and nursing leaders who participated in the development and expansion of the CLU throughout this time.

Conclusion

The CLU model, along with other practice education models, continues to evolve in response to new evidence and shifting practice contexts. However, the quality of practice education remains vulnerable to ongoing nursing and nurse educator shortages, changes to scopes of practice, health system care delivery models, further specialization of health care environments, and shrinking resources in both academic and practice sectors. Overall, we noted a pattern of substantial initial collaboration, investment, and expansion, followed by gradual erosion. The CLU model became embedded as the primary practice education approach for senior BSN students concurrently with significant reductions in supporting infrastructure across health care and postsecondary education sectors. It is important for program planners to consider that as placement capacity increases through innovative model development, infrastructure needs will also most likely increase to support quality processes. We suggest that continued scarcity discourses and limited intentional focus on sustainability over time contributed to the erosion of nursing and nursing education infrastructure, and thus dilution of the potential positive impact of this practice education model. The goal to create a culture of learning and inquiry became less visible.

There is increasing recognition that the urgency of creating sustainable nursing systems and resources can only be met if health care and practice environments enrich and support nurses and others to uphold practice standards, ethics, and ideals (British Columbia Ministry of Health Nursing Education Planning Council, 2019). We propose that practice education opportunities are best facilitated through intentional renewal and maintenance of academic-practice partnerships. Robust shared infrastructure, evaluation, and sustainability processes are required to support the CLU model and, we suggest, any model of nursing practice education. We also recommend continued adaptation of the CLU model to emerging practice contexts that address population health, including primary care, community care and population health, mental health and substance use, senior's health, and Indigenous health. As national and global reports continue to situate nursing as key to health system transformation, there continue to be health human resource pressures to ensure adequate numbers of well-prepared graduates. It is vital that faculty and

colleagues in practice partner to create diverse, high-quality, sustainable practice learning environments.

References

Alexander, J., Weiner, B., Metzger, M., Shortell, S. M., Bazzoli, G. J., Hasnain-Wynia, R., Sofaer, S., & Conrad, D. (2003). Sustainability of collaborative capacity in community health partnerships. *Medical Care Research and Review*, *60*(4 Suppl.), 130S–160S.

Benner, P., Sutphen, M., Leonard, V., Day, L., & Shulman, L. (2009). *Educating nurses: A call for radical transformation*. Carnegie Foundation for the Advancement of Teaching.

Bowen, G. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal, 9*(2), 27–40. https://doi.org/10.3316/qrj0902027

British Columbia Ministry of Health Nursing Education Planning Council. (2019). *Final report* [Unpublished].

Cooke, A. (2004). The role of chief nursing officers in BC's regional health authorities. *Nursing BC, 36*(3), 23.

Edgecombe, K., Gonda, J., & Bowden, M. (2014). From conceptualization to future expansion: Keys to successful dedicated education unit implementation and sustainability. In K. Edgecombe & M. Bowden (Eds.), *Clinical learning and teaching innovations in nursing: Dedicated education units building a better future*. Springer.

Edgecombe, K., Wotton, K., Gonda, J., & Mason, P. (1999). Dedicated education units: 1. A new concept for clinical teaching and learning. *Contemporary Nurse*, *8*(4), 166–171. https://doi.org/10.5172/conu.1999.8.4.166

Gonda, J., Wotton, K., Edgecombe, K., & Mason, P. (1999). Dedicated education units: 2. An evaluation. *Contemporary Nurse*, *8*(4), 172–176. https://doi.org/10.5172/conu.1999.8.4.172

Grealish, L., & Carroll, G. (1997). Beyond preceptorship and supervision: A third clinical teaching model emerges for Australian nursing education. *Australian Journal of Advanced Nursing, 15*(2), 3–11.

Greenway, K., Butt, G., & Walthall, H. (2019). What is a theory-practice gap? An exploration of the concept. *Nurse Education in Practice*, *34*, 1–6. https://doi.org/10.1016/j.nepr.2018.10.005

Hutchings, D., Tschanz, C., Evers-Fahey, K., & McLeod, D. (2017). *Collaborative learning units in the University of Victoria School of Nursing: Timelines and evolution*. University of Victoria.

Kirkpatrick, H., Byrne, C., Martin, M., & Roth, M. (1991). A collaborative model for the clinical education of baccalaureate nursing students. *Journal of Advanced Nursing, 16*, 101–107.

Lewis, S., & Khouri, D. (2004). Regionalization: Making sense of the Canadian experience. *Healthcare Papers, 5*(1), 12–31.

Lougheed, M., & Galloway-Ford, A. (2009). *The collaborative learning units model of practice education for nursing: A summary.* Collaborative Learning Units Provincial Group.

Miller, F., & Alvarado, K. (2005). Incorporating documents into qualitative research. *Journal of Nursing Scholarship, 37*(4), 348–353. https://doi.org/10.1111/j.1547-5069.2005.00060.x

Pearson, A. (1982). *The Royal Jubilee Hospital School of Nursing, 1891–1982*. Alumnae Association of the Royal Jubilee School of Nursing.

Pijl-Zieber, E., Grypma, S., & Barton, S. (2014). Baccalaureate nursing education: Has it delivered? A retrospective critique and a call to action. *Canadian Journal of Nursing Leadership, 7*(2), 27–34. https://doi.org/10.12927/cjnl.2014.23839

Pluye, P., Potvin, L., & Denis, J. (2004). Making public health programs last: Conceptualizing sustainability. *Evaluation and Program Planning, 27*, 121–133. https://doi.org/10.1016/j.evalprogplan.2004.01.001

Pringle, D., Green, L., & Johnson, S. (2004). *Nursing education in Canada: Historical review and current capacity*. Nursing Sector Study Corporation.

Purkis, M., & Lougheed, M. (2003). *Collaborative learning units: An integrated practice education model for nursing. Final report.* University of Victoria.

Scaia, M., & Young, L. (2013). Writing history: Case study of the University of Victoria School of Nursing. *International Journal of Nursing Education Scholarship, 10*(1), 19–26. https://doi.org/10.1515/ijnes-2012-0015

Sibbald, B. (1998). The future supply of registered nurses in Canada: A new study commissioned by the Canadian Nurses Association urges immediate action to revert a shortage. *Canadian Nurse, 94*, 22–23.

Wolff, A., Regan, S., Pesut, B., & Black, J. (2010). Ready for what? An exploration of the meaning of new graduate nurses' readiness for practice. *International Journal of Nursing Scholarship, 7*, Article 7. https://doi.org/10.2202/1548-923x.1827