Seamless Care: An Interprofessional Education Project

for Innovative Team-Based Transition Care

Final Report
June 1, 2005 to March 31, 2008
MAIN MESSAGES

Key Lessons

- Experiential interprofessional education (IPE) is effective. When placed together in the clinical setting, health professional students learn with, from and about each and are modeled in interprofessional collaborative practice.

- Working together with “real” patients brings home the meaning of interprofessional patient-centred collaborative practice.

- Experiential IPE is administratively challenging. Academic schedules and clinical requirements for licensure differ across professional programs.

- Facilitating interprofessional learning (IPL) needs to be learned and can be burdensome to clinical preceptors already providing care in the clinical setting.

- Patients valued the experience of working with interprofessional student teams.

- The Self-management Scale assisted the student teams to focus on the patients’ perspective. Although the scale was very motivating for one patient, many reported difficulty with goal-setting, particularly in the area of “managing emotions”.

Implications

- National Accreditation and Licensing Bodies: Articulate competencies in interprofessional collaborative patient-centred practice for all health professions.

- Federal Government: Support innovative interprofessional models of care that empower patients to assume a more central role in managing their illness.

- Provincial Government: Support experiential IPE in all health professional programs.
- Universities/Health Care Institutions: Provide an institutional “home” for IPE to prepare, support and house faculty, preceptors and clinicians and funded initiatives to generate and translate evidence of IECPCP.

- Health professional Programs: Embed experiential IPE in the curriculum and assign academic credit.

EXECUTIVE SUMMARY

Seamless Care: An Interprofessional Education Project for Innovative Team-Based Transition Care was a 33 month, IECPCP project funded by Health Canada’s Pan-Canadian Health Human Resources Strategy. The overall goal of Seamless Care was to prepare pre-licensure health professional learners to become competent collaborative patient-centred practitioners. Additional objectives were to demonstrate positive patient outcomes and to prepare both educators and health care delivery settings to support a sustainable IPE program for collaborative transition care.

Over a two year period, 62 health professional students from nursing, medicine, pharmacy, dentistry and dental hygiene worked together in 14 interprofessional teams for four hours/week over eight weeks. Each student team worked collaboratively in one of nine clinical practice sites to assist a “real” patient to assume a more central role in managing their chronic illness as they transitioned from acute care to home or to another level of care. Each student team was guided by an Integrative Preceptor (IP) from the collaborative practice site and Discipline Preceptors (DPs) from the health professional schools.

Outcomes from Seamless care included: (1) improved student self-efficacy for interprofessional collaborative practice; (2) improved faculty self-efficacy to facilitate learning for interprofessional collaborative practice; (3) increased understanding of the patient experience of living with a chronic illness; and (4) an understanding of appropriate methods for faculty and student development in interprofessional
collaborative practice. Guided by the modified Kirkpatrick Evaluation Model\textsuperscript{5}, these outcomes were assessed qualitatively and quantitatively using focus groups, interviews and quantitative measurement scales, including four new scales adapted/developed for the project.

**CONTEXT**

The main external driver for *Seamless Care* was Canada’s evolving health care field/system. In 2003 the First Ministers’ Accord on Health Care renewal highlighted the importance of appropriate planning and management of health care human resources to ensure Canadians always have access to health care. “Changing the way we educate health care providers is key to achieving system change and to ensuring that health care providers have the necessary knowledge and skills to work effectively in interprofessional teams within the evolving Health Care system”.\textsuperscript{8}

Health system reform demands new approaches to patient care that make effective use of limited resources while maximizing patient health and well-being. Government, health system administrators, clinicians and academics are increasingly interested in team-based interprofessional care, which has been shown to improve patient outcomes, reduce re-admissions to acute care and lower cost to the health care system. Health professionals have been educated largely in isolation of each other. Each health profession has had its own unique knowledge base and culture of values and attitudes - in fact, the health professions are sometimes referred to as silos, operating beside but apart from each other.\textsuperscript{2, 3, 4, 6} Patients are better served when health professionals transcend these barriers to work cooperatively.\textsuperscript{10}

Historically, evidence of the effectiveness of pre-licensure interprofessional education has been lacking. Lack of evidence does not mean that interprofessional education is ineffective, but rather may indicate that the impact of interprofessional education is difficult to evaluate.\textsuperscript{10} Furthermore, the present practice of educating
students in silos offers little opportunity for students from different health profession programs to interact and work together in an ‘authentic’ setting. This has resulted in limited opportunities to carefully evaluate the process and outcomes of interprofessional educational interventions, particularly those implemented in the clinical setting.

The principal internal driver for this project was Dalhousie’s existing mandatory interprofessional learning (IPL) education program for pre-licensure health professional students. Dalhousie University has a lengthy history of IPL beginning with a “sexuality week” in the 1970’s that involved faculty members in medicine, nursing, and theology. Other grass-roots efforts included the development and delivery of IPL modules in breastfeeding and HIV/AIDS. Since 1997, Dalhousie's Faculties of Dentistry, Health Professions, and Medicine have collaboratively prepared students to work in multi-disciplinary health teams through an IPL program under the auspices of the Tri-Faculty Interprofessional Academic Advisory Committee (Tri-IPAAC). Through Tri-IPAAC’s IPL program, students are required to take part in modules to discuss contemporary health and health care issues. Each year over 3,900 students across 22 independent health professions attend the classroom-based modules. Seamless Care builds on this well-established IPL program by extending it to the clinical realm - a longstanding program goal.

The primary purpose of Seamless Care was to develop a viable interprofessional educational intervention in a clinical setting. The project involved student teams from medicine, nursing, pharmacy, dentistry and dental hygiene helping patients to develop the skills and knowledge necessary to manage their illness, work with their health care team, and within the health care system. This project provided the opportunity to gather important information about patient needs in transition care and may suggest how an interprofessional team could support patients in developing capacity for their own self-management of care.
Overall, Seamless Care had four specific objectives:

- to develop an innovative approach to inter-professional education that prepares pre-licensure health professionals for collaborative practice;
- demonstrate the benefits of the educational project to learners in terms of collaborative care competencies;
- demonstrate positive patient outcomes from the collaborative transition care model; and
- prepare both educators and health care delivery settings to support a sustainable IPL program for collaborative transition care

**APPROACH**

**Project Design and Developments**

Seamless Care was a clinically-based interprofessional education intervention grounded in the model developed for IECPCP by D'Amour and Oandasan. Consistent with this model Seamless Care was set within two related systems: the educational and care delivery systems. This project bridged these two systems by having the patient as the centre of the collaborative learning experience. The focus was primarily on the educational system, as the student learners were at the pre-licensure level. Seamless Care’s interprofessional education model was piloted twice and involved interventions for each of the three main participant groups:

- **The learner**: The intervention was based in the development of core competencies in both interprofessional learning and patient-centred collaborative practice. 

- **The educators**: This educational model focused on the preparation and support of educators for their role to support and guide students in interprofessional learning. There were two groups of educators: the Integrative Preceptors (IP) and
the Discipline Preceptors (DP). The IPs were clinicians from the collaborative practice site who supervised the student teams and acted as the patients’ advocate. The DPs were faculty members from the five health professional programs who functioned as a resource for students on discipline-specific matters. In the case of Dentistry and Pharmacy, some of the DPs were clinicians from outside the university.

- **The patients**: The educational model centered on patients who were making a transition from hospital to home or to another level of care. One of the key goals of transition care was to facilitate the patients’ central role in managing their illness.

**Seamless Care** had five distinct phases: (1) Development Phase, (2) First Pilot of the IPL Intervention, (3) Evaluation, Modification & Dissemination, (4) Second Pilot of the IPL Intervention and (5) Evaluation & Dissemination.

Table 1: *Seamless Care* Timelines.

<table>
<thead>
<tr>
<th>Phase Number</th>
<th>Phase Name</th>
<th>Original Timeframe</th>
<th>Revised Timeframe</th>
<th>Project Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Development Phase</td>
<td>Jun 05 – Mar 06</td>
<td>Jun 05 – Dec 05</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>First Pilot of the IPL Intervention</td>
<td>Mar 06 – Apr 06</td>
<td>Jan 06 – Mar 06</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Evaluation, Modification &amp; Dissemination</td>
<td>May 06 – Mar 07</td>
<td>Apr 06 – Dec 06</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Second Pilot of the IPL Intervention</td>
<td>Mar 07 – Apr 07</td>
<td>Jan 07 – Mar 07</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Evaluation &amp; Dissemination</td>
<td>Apr 07 – Dec 07</td>
<td>Apr 07 – Mar 08</td>
<td>3</td>
</tr>
</tbody>
</table>

From April 2006 to March 2007, **Seamless Care**’s main activities/deliverables were:

- the **second implementation of an innovative interprofessional learning approach** within a modified transition care model, based on feedback from the first pilot test of the educational intervention;
• continuing **faculty and professional development** in interprofessional learning, including development of training materials and approaches;

• **development and administration of evaluative instruments** including measures of outcomes for patients, student learners and educators, and assessment of their satisfaction with and reaction to the intervention; and

• **ongoing knowledge translation / dissemination**, including conference and workshop participation and publication of research results.

**Second Pilot of the Educational Intervention**

The second educational intervention was a modified version of the first pilot. Modifications were made based on participants’ feedback provided during focus groups held in the spring of 2006. An important addition to this second pilot was the role of Interprofessional Facilitator (IF). This role was added in response to the preceptors’ desire for more support. The IF role was developed to support the educators (IPs, DPs) and the student teams. A full description of the roles and responsibilities of the IF is available in Appendix A on page 7 of the Student Handbook.

Similar to the first pilot, the second implementation consisted of distinct interventions for each participant group: patients, students and preceptors.

• **Patient Intervention**

The patient intervention consisted of student-led activities to assist patients to transition from acute care to the community (or to a less acute level of care). The goal of these activities was to facilitate the patients’ central role in managing their illness. The patient intervention also provided a medium through which students learned with, from and about each other. Working under the guidance of their IP, and in collaboration with the patient, each student team developed and implemented a plan of care for transition.

Patients eligible for the interprofessional intervention were identified in collaboration with the practice sites. All patients spoke and understood English, provided written informed consent and were willing to have the students make a home visit. In
year one, four patient groups were represented: patients with diabetes, the frail elderly, palliative care recipients and patients with heart failure. This year, additional patient groups were added: patients with gastrointestinal problems, hypertension and those requiring physical rehabilitation and continuing care. Each patient group was invited to participate because the clinical sites where patients receive treatment for these conditions have well-established collaborative care models. This was considered essential for the patients and student learners participating in the project. Patients were supported by well-established patient-centred clinical settings and professionals, and student learners had strong role models from whom to learn about interprofessional practice. Student teams were guided to help patients develop the necessary knowledge, skills and confidence to deal with disease-related problems and to collaborate with their health care professionals and the health care system.

The patient intervention is based on Bandura’s self-efficacy theory and emphasizes problem-solving, decision-making, and confidence building.\(^1\) Initially, patient self-management skills were assessed using the *Patients’ Self-Efficacy Measure for Managing Chronic Disease*.\(^9\) During the Evaluation, Modification & Dissemination phase, a new instrument was designed called the *Patient Self Management Scale* (see Appendix B), to further focus the work of the student interprofessional teams with the patients. Using this scale, the patients collaborated with the student team to set goals in three domains: symptom management, emotions, and activities of daily living. Patients then indicated on a visual analogue the importance of each goal and their confidence and satisfaction related to achieving each goal. To assess changes, the *Patient Self Management Scale* was administered at the start and at the end of the intervention.

Student teams met with the patients at the clinical site and at the patients’ home/longer term care facility. “Home visits” by the student team allowed better assessment of the patient’s condition, progress and patient needs during the transition. The guiding principle of patient-centeredness was reinforced throughout the model.
• **Student Intervention**

The Seamless Care student intervention consisted of several elements: an orientation workshop, on-going educational sessions and an 8-week IPL experience with an interprofessional student team. Students eligible to participate in the program were in their senior year and demonstrated strong time management and clinical skills. Students were selected by their respective faculties. Each student team consisted of a nursing student, a medical student, a pharmacy student and a dental and/or dental hygiene student. The goals of the team were to facilitate patient’s transition from acute care to home or continuing care and to develop skills in working with an interprofessional team in planning the care of a patient.

Students and Preceptors (IPs and DPs) involved in the second pilot of Seamless Care attended a full-day orientation workshop in early January 2007. The orientation was an opportunity for students to meet the IP and the other students assigned to their group. Several critical topics were included: project overview, introduction to interprofessional education, principles of collaboration, roles and responsibilities of each participant group, discussion and description of each professional group’s scope of practice, perspectives of a panel of Preceptors from the nine (9) collaborative practice sites, reflection as a learning technique, orientation to BLS, establishment of ground rules and expectations for team work, and clarification of project goals. During orientation each student team worked on a case study exercise with their IP and DP. Five case studies were developed for the orientation in consultation with the IPs and are presented in Appendix B. Each student also received a handbook and a workbook. The handbook detailed the roles and responsibilities of each participant group, the resources available and a project checklist. The workbook contained key forms, timelines, important dates, planning and meeting templates etc.

Following consent of an eligible patient, the IF notified the student team and arranged a meeting with the students and their IP. At that meeting, students were briefed
about the patient’s case history, shared their own discipline’s perspectives on patient care and identified learning needs. They also addressed the logistics of meeting together as a team and with the patient. Assessment of the patient followed and varied across the student teams. Some student teams assessed the patient together, some student teams conducted individual assessments, and some teams conducted their assessments in pairs. After administering the *Patient Self-Management Scale*, the student team developed an integrative care plan and implemented the plan under the guidance of the IP.

Communication between students and IPs varied across sites and teams. Some student teams met face-to-face, some student teams supplemented face-to-face meetings with teleconferences. Most students and preceptors communicated using BLS, a password-protected web-based course management system. Within BLS, participants (students and preceptors) had access to educational materials, evaluation instruments, and other resources, such as email and project schedules. Students used BLS to arrange team meetings, send and receive email and attend to administrative issues.

At the close of each team meeting, students completed a *Team Reflective Exercise* (see Appendix C). This exercise required the team to self-assess team functioning, interprofessional competencies, and patient-centredness. The IP also provided the student team with feedback on their performance. Throughout the intervention students were supported by the *Seamless Care IF*, who was available to clarify questions, facilitate communication, and maximize the use of *Seamless Care* resources.

The team members conducted follow-up meetings with the patient/family following the patient’s discharge. The number of home visits during the pilot was determined by the student team and their IP in collaboration with the patient. Following the IPL intervention, patients had the opportunity to confer with the student teams and their IP. The student team also provided a jointly-prepared case report to the patients’
family physician, where one was identified. The case report concerned the plan the team developed to help the patient transition from hospital to home or to less acute care. Another team report on the patient was sent to Seamless Care to document the actions taken by the team with the patient.

- **Preceptors Intervention**

  As described earlier, two groups of preceptors participated in the Seamless Care project: Integrative Preceptors (IPs) and Discipline Preceptors (DPs). During Phases 3 and 4 of the Seamless Care project, 12 IPs and 17 DPs voluntarily participated in the project. The IPs were experts in the care of the patient participants and were key to the success of the project. They identified eligible patient participants, mentored the student teams in interprofessional practice, attended student team meetings and provided feedback on team functioning. As advocates for the patient, they supervised the transition plan of care and arranged home visits. During the first year of the project, the role of the IP was not clearly defined and in the focus groups IPs expressed lack of confidence in their ability to facilitate team skills in students. In the second pilot, the role of the IP was clearly defined and thoroughly discussed during the Orientation Day. To address concerns regarding group facilitation, the IF tutored the IPs individually and assisted the IP to facilitate the initial student team meeting.

  The DPs were primarily faculty from the health professional schools (Nursing (1), Medicine (2), Pharmacy (2), Dentistry (3) and Dental Hygiene (4)). However, some Schools required that their health professional students be supervised by DPs when assessing patients (ie. Pharmacy and Dentistry) and therefore, some DPs were clinicians from outside the university. During the first year of the project, the role of the DP was vaguely defined and DP involvement with students was minimal. However, during the second pilot, the role of the DP was clarified and the DPs were more fully engaged. For example, during Phase 3 the DPs met with the students from their
discipline to assist them with articulation of their scope of practice. The DPs also acted as a resource for the students for discipline specific clinical questions.

Faculty & Professional Development Activities

Faculty and professional development were essential components of the Seamless Care experience. Faculty and preceptors received an orientation to their role and were supported by the project’s IF. In the fall of 2006 the IF met with the DP’s and IP’s to assess their knowledge and skills in facilitating interprofessional learning. In response to this assessment five modules were developed and delivered to address identified gaps. These modules are described in Appendix D.

Evaluation Methods

The Evaluation of Project Outcomes was planned from the outset of the project to complement and systematically evaluate all of the potential outcomes and processes we had identified for each of our three foci. Table 2 presents the evaluation methods, organized by the modified Kirkpatrick’s framework.5

Table 2. Evaluation matrix for the Seamless Care project.

<table>
<thead>
<tr>
<th>Kirkpatrick Level</th>
<th>Student</th>
<th>Faculty</th>
<th>Patient</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaction</td>
<td>Focus Groups</td>
<td>Focus Groups</td>
<td>Interviews</td>
<td>Post (Patient at 3 months)</td>
</tr>
<tr>
<td>Attitudes Perception</td>
<td>RIPLS Students AHCTS (Yr 2)</td>
<td>RIPLS Faculty* AHCTS (Yr 2)</td>
<td></td>
<td>Pre Post 3 months</td>
</tr>
<tr>
<td>Knowledge Skills</td>
<td>SEIEL* Team Reflective Exercise*</td>
<td>SEFIEL* Team Reflective Exercise*</td>
<td>SE Self-Management *</td>
<td>Pre Post 3 months</td>
</tr>
<tr>
<td>Benefits to patients</td>
<td></td>
<td></td>
<td>Interviews</td>
<td>Post – 3 months</td>
</tr>
</tbody>
</table>

Note: 1. RIPLS = Readiness for Interprofessional Learning Scale; AHCTS = Attitudes to Healthcare Teams Scale; SEIEL = Self-efficacy for Interprofessional Experiential Learning Scale; SEFEIL – Self-efficacy for Facilitating Interprofessional Experiential Learning Scale. 2. Measures indicated by an “*” were developed specifically for the project.
During Phases 3 and 4 of Seamless Care, we developed a new Team Reflective Exercise for Students and an Observation Guide for Student Team Function (see Appendix E). The adapted RIPLS for Faculty (see Appendix F) and our newly developed scales, Self-efficacy for Interprofessional Experiential Learning (SEIEL) (students) (see Appendix G) and Self-efficacy to Facilitate Interprofessional Experiential Learning (SEFEIL) (see Appendix H) (IPs, DPs) were piloted with 65 faculty and 190 students attending the class-room based IPL sessions at Dalhousie. Additionally, these scales were subjected to content validation by 32 experts from across Canada. Analyses of the results of this validation work are ongoing.

Leadership/Partners

Seamless Care is a partnership between Dalhousie University and Capital District Health Authority (CDHA) in Nova Scotia. At Dalhousie, five faculties worked collaboratively on the project: the Faculty of Medicine, School of Nursing, Faculty of Dentistry, School of Dental Hygiene and the College of Pharmacy. At CDHA nine clinical sites participated in the project: (1) Acute Stroke Program; (2) Centre for Health Care of the Elderly; (3) Diabetes Case Management; (4) Gastroenterology; (5) Heart Failure Clinic; (6) Hypertension Clinic; (7) Northwood Health Care Centre; (8) Palliative Care Services; and (9) Physical Medicine and Rehabilitation.

The implementation of the Seamless Care Model was possible with the organizational support of the Steering Committee and a smaller Management Committee. Both committees had inclusive memberships such as with academic, clinical and student representatives as well as patient/consumer representatives. The Steering Committee provided broad direction and governance to the project. One of its strengths is that much of its representation was tied to administrative positions, i.e. membership is accorded to the actual position and not to the person occupying it. This demonstrates the strong commitment from senior levels within Dalhousie and CDHA and the stability accorded through institutional continuity. The smaller Management Committee was
meant to be responsible for the implementation of the intervention. The goal was to meet once a month during the intervention to support the teams as needed. However, it was challenging to find a time where a majority of the management team could meet face-to-face so implementation of the intervention was directed by the Co-Principal Investigators and the Project Staff.

**Communication/Dissemination**

*Seamless Care’s* communication plan includes knowledge translation, dissemination and networking activities which have occurred throughout all stages of this project. These activities have contributed to the sustainability of IPL and provided valuable knowledge about IECPCP. For example, *Seamless Care* provided opportunities for knowledge transfer among all learners (patients, students, preceptors), professional groups and disciplines. Knowledge transfer included faculty and professional development, orientation and the eight-week educational experience, as well as through the various evaluation methods such as the focus groups held with student teams and their IPs and DPs. The research team has been preparing refereed and non-refereed articles for both professional and scholarly publications and journals, e.g., 1) *Journal of Interprofessional Care*; 2) *Medical Education*; 3) *Evaluation and the Health Professions*; 4) *Journal of Advanced Nursing*; 5) *Patient education and Counseling*). Leadership/partners. Regional, national and international presentations are tabulated in Appendix I.

**KEY FINDINGS**

The contributions of the ‘Seamless Care’ project to the IECPCP immediate outcomes are shown in Appendix J. In response to each of the outcomes, we have indicated a) the relevant contributions of our project, b) the methods of evaluation, and c) the evaluation challenges we encountered.
Evaluation of Expected Outcomes

- **Improved student self-efficacy for interprofessional collaborative practice**

This outcome was supported by the qualitative data. Analysis of the student focus group data revealed that students valued the opportunity to learn from others and to gain a first-hand understanding of the scopes of practice of other health professionals. Most students appreciated the opportunity to learn more about the role of dentistry and dental hygiene but questioned the exclusion of physiotherapy, social work and occupational therapy, noting that these professions could have benefited their patient. Students from dentistry and dental hygiene particularly appreciated the opportunity to “learn by doing” and to learn in a health care setting. Building on the notion of experiential learning, there was widespread consensus that the Seamless Care approach is more engaging and “real” than the case-based interprofessional learning sessions.

* I really saw how beneficial interprofessional care and learning can be…it just put it all in perspective when you realize you hear it from a lot of perspectives and the literature has been there to say it’s good and it works - but to experience it first hand and see it works I think was huge. (dental hygiene student, 2007).

Analysis of the quantitative data also supported this outcome. Scores on the **Student Self-efficacy for Interprofessional Experiential Learning** increased significantly immediately following the intervention (p < 0.001) and this effect was sustained three months later (p < 0.001). Scores on the **Attitudes to Health Care Teams Scale** also increased significantly from baseline to immediately following the intervention (p < 0.001) and this effect was also sustained three months later (p < 0.001). Scores on the **Readiness for Interprofessional Learning Scale** did not change significantly from baseline following the intervention. One possible explanation for this finding is that student readiness for interprofessional learning may have been high at baseline. As required by all of the health professional programs at Dalhousie, the Seamless Care
student participants had completed four case-based modules in interprofessional learning prior to entering the project.

Logistics were identified as barriers to interprofessional learning. The scheduling of the intervention was a source of concern, particularly the fact that it was held during students’ final year of school; however, there was also a sense that there may not be an ideal time for it. Students commented that there is no IPL work occurring during their third years. It was acknowledged that participating in Seamless Care is voluntary, but represents a major commitment. Therefore, students recommended some form of incentive for participating. This could take the form of an elective, a monetary incentive, a certificate or a note on a transcript.

- Improved faculty self-efficacy to facilitate learning for interprofessional collaborative practice;

As with the student participants, there was general consensus that the opportunity to work in an interprofessional team was very beneficial and an effective way to learn about the scopes of practice of other health professionals. Also, as with the students, the preceptors reported learning much about the scopes of practice of dentistry and dental hygiene. A common them was that working with real patients was beneficial.

… my sense is you know the reason that the [SEAMLESS CARE] students really liked, our students particularly, is simply because it was clinical. They really, really like patient care. So that was sort of the ultimate for them. It was quite different from sitting around a table talking about it in a pre-clinical sense. So I think that was sort of the cream for them (preceptor focus group, 2007).

Many preceptors felt that they didn’t understand their role. Many expressed that they had no previous experience in precepting an interprofessional group of learners and reported needing more guidance than they received, and feeling “at sea.” Also, the experiences of preceptors varied by exposure to the intervention. Those who felt the most success were generally those who had acted as a preceptor in 2006 during the first round of the intervention. Importantly, the Interprofessional Facilitator (IF) was recognized as a valuable resource upon whom preceptors could rely. The addition of the
IF seems to have allowed a “much better” experience in the 2007 session during the second round of the intervention.

We developed two quantitative scales to measure preceptor and faculty self-efficacy for facilitating interprofessional experiential learning. Factor analyses from these scales are ongoing so we do not have quantitative results to report at this time.

- Improved patient self-efficacy to self-manage symptoms, activities of daily living and the emotions associated with living with a chronic illness;

The overwhelming theme arising from the patient interviews was that the patients enjoyed the company of the students. The patients unanimously identified the students as pleasant and concerned. However, the patients generally did not feel that the students had a significant influence on their health. Rather than conceptualizing the students as being involved in order to support the patients’ care, there was some feeling that the patients were involved in order to support the students’ learning. For the most part, the patients were not particularly interested in the self-management scale; however, for one patient in particular it was very motivational (rehabilitation clinical site). Two patients (stroke and heart failure clinical sites) had very little memory of the students of the intervention, perhaps due to the timing of the intervention.

- Understanding of appropriate methods for faculty and student development in interprofessional collaborative practice.

The one-day orientation to Seamless Care was widely recognized as useful; but some felt it should have focused more on participants’ roles, particularly preceptors who were new to the project. Students and preceptors valued the case studies discussed during orientation as a venue for exploring the roles of other professions and for getting to know the students in their group. The student manual and workbook were distributed to students late in the second round of the project and therefore were of limited value. However, students reported that these materials would have served as a “course syllabus” and would have been very helpful.
The professional development workshops and the interprofessional journal club were not formally evaluated but verbal feedback was positive. Attendance at the workshops was greater in the second year when we offered the workshops twice, once in the clinical setting and once in the university setting. Attendance at the 11 journal club seminars varied but approximately 99 persons attended overall.

The Role of Interprofessional Facilitator developed in the second year of the project was highly valued by preceptors.

*I can honestly say that I found this year was, just everything fell into place. I couldn’t have asked for anything to go any better than it did. I think the big difference…that day at Pier 21 (orientation),…was hugely beneficial for everybody in my group because it kind of broke the ice …As well, having someone, a resource person to go to any time I picked up the phone for example, when I needed advice or what do I do here…the interprofessional facilitator was always there. Spot on. So that made a big difference as well (preceptor focus group, 2007).

Student Experience Domain

- **Opportunities for students to work collaboratively**

During the Seamless Care project students from medicine, nursing, pharmacy, dentistry and dental hygiene worked together in interprofessional teams to plan care for a “real” patient with a chronic health condition who was transitioning from acute care to the community or to another level of care. For approximately 4 hours a week over 8 weeks (2006 and 2007), student teams collaborated and reached consensus in the following key areas: (1) the process of working together (ie. decision-making, timing and location of meetings, and communication with each other between meetings) and (2) the approach to assessing, planning, implementing and evaluating care to meet their patient’s self-identified goals. For example, students collectively designed their team approach to assessment; some teams assessed the patient individually and then shared their assessments and other teams chose to collaborate on the assessment and approached the patient in pairs or in small groups. Following assessment, the student team collaborated with the patient to set achievable goals in three areas of self-
management: (1) symptoms; (2) activities of daily living; and (3) emotions. Following goal-setting, the student team collaborated with each other and with the patient on a plan of care to meet these goals. For example one student team designed a plan of care to help a palliative care patient achieve his goal of working in the garden. Another team consulted an occupational therapist regarding a device for brushing teeth that allowed a recovering stroke patient to self-manage his oral hygiene. At the beginning of the 8-week period and again at the end, each patient rated their confidence in achieving each self-management goal. This exercise centred the students in the patient’s perspective and ensured a patient-centred approach to care.

- **Student understanding of collaborative practice.**

When we designed the Seamless care project we searched the literature for valid and reliable instruments to measure the impact of our educational intervention on students’ self-efficacy (or self-confidence) to practice collaboratively in interprofessional teams. We soon discovered that such tools were lacking and so we developed a new instrument entitled “Self-efficacy for Interprofessional Experiential Learning” (SEIEL). This scale is based on Bandura’s Self-efficacy theory which emphasizes problem-solving, decision-making, and confidence building. This 15-item scale measured the students’ self-efficacy to work effectively in an interprofessional team and was administered three times (prior to the intervention (T1), immediately following the intervention (T2), and 3 months following the intervention (T3)).

To measure the students’ perceptions of their team’s ability to work together, we developed a “Team Reflective Exercise”. This scale was completed by each student team at the end of each team meeting and measured the team’s collective perceptions of team communication, patient-centredness, conflict resolution and leadership. To further capture team function, some student team meetings were taped recorded (15) and observed (13). To evaluate reaction to and satisfaction with the intervention and to illicit feedback on learning in collaboration and patient-centredness, we held focus
groups with students immediately following the intervention. These focus groups of six to eight students were guided by a trained facilitator (from outside the project) using a semi-structured interview guide. Discussions were taped and transcribed and provided rich data for analyses. Students who could not participate in the focus groups were interviewed by the facilitator on the telephone. Qualitative analyses of the transcripts revealed that students learned with, from and about each other and about the scopes of practice of other professions. A central theme was that students valued the opportunity to work together in a clinical setting and to engage “real” patients in the hospital and at home. The students often referred to themselves as the “B” team and described innovative ways to collaborate and contribute to patient-centred care outside “usual care”.

**Challenges and barriers to achieving positive outcomes for students**

The main barriers to student participation in Seamless care were (1) conflicting academic schedules and (2) lack of academic credit. The Seamless Care intervention was not integrated into the curriculum of the participating health professional programs so participation in the project was “over and above” required learning activities. As a result, finding a mutually available time to meet together was a challenge for students. It was especially challenging for students when they tried to schedule collective time with their preceptor and their patient. Location of Seamless Care outside the curriculum also meant that students did not receive academic credit for participation. In the second year of the project, some health professional schools developed innovative ways to recognize student participation by embedding Seamless Care in a course as an assignment or giving credit as an Independent Study elective. The Faculty of Dentistry gave dental students credit for participating in Seamless care by assigning clinical credits.
Educator Experience Domain

- **Challenges and barriers to achieving positive outcomes for educators.**

  Lack of role clarity was a major challenge for the preceptors in Seamless Care. The discipline preceptors (DPs) were recruited to act as a discipline-specific resource for students. In the first year of the project, the role of these preceptors was vague and poorly defined and the students rarely contacted them. In the second year of the project, the DP role was clarified and included discussions of scope of practice with students from their discipline. The scope of practice discussions were appreciated by students in the second year but overall, the DP role remained underutilized.

  The integrative preceptors (IPs) were health professionals from the clinical sites. The IPs were critical to the success of the project as these professionals modeled interprofessional collaborative practice, advocated for the patient and guided the student team. IPs also reported role ambiguity in the first year of the project. In response to this feedback, the supportive role of Interprofessional Facilitator (IF) was introduced in year II. The IF assessed preceptor learning needs, attended student team meetings and assisted the IPs with group process Based on the IF needs assessment, faculty development workshops were added in Year II. In the second year focus groups, the IPs reported that the IF role was helpful and that participation in Seamless Care was rewarding. However, IPs also reported that facilitating the student groups was “over and above” their clinical responsibilities and therefore, burdensome.

- **Educator experience in the interprofessional environment.**

  To evaluate the preceptors’ reactions and satisfaction with Seamless Care, we conducted focus groups immediately following both rounds of the intervention. Preceptors told us that precepting teams of interprofessional learners was different than precepting individual learners. Some emphasized that although they were experienced and comfortable with precepting students from their own profession, they did not feel prepared to facilitate learning in interprofessional groups. IPs reported that they needed
training in how to facilitate interprofessional learning in groups. This finding is congruent with the report that preceptors who facilitated both years found the second year easier and more enjoyable. The learning needs of preceptors were reinforced in the student focus groups. Students reported that the IP role varied widely across student groups and clinical sites. For example, some IPs attended all student team meetings, while some IPs attended very few; some IPs were very directive in team meetings and others allowed the students to take the lead; some IPs used structured learning techniques (ie. power point slides), while others did not.

- **Development needs of faculty/preceptors in collaborative practice.**

Seamless Care recruited clinical sites and IPs with highly-developed skills in collaborative practice. Consequently, we did not assess, evaluate or address faculty/preceptor development needs in collaborative practice.

**Patient Experience Domain**

Fifteen patients participated in the project over two years (five in the first year and ten in the second year).

- **Positive patient outcomes.**

Patients and their families suggested that the main benefit of the Seamless Care student team was not healthcare related, but having students reinforce healthcare information already provided by the primary team. In the first year, most students reported that they had little effect on the patient other than to offer company, support and to reiterate what the ‘real’ healthcare team already told them. Students felt they were limited in their capacity to help patients due to the fact that the ‘real team’ had already made a plan for and all the decisions about the patients.

For the most part preceptors agreed. One preceptor described this point:

*It is difficult to say that patients had needs met by the Seamless Care project that wouldn’t have been met by the multidisciplinary team anyway. So that is one of the areas where it would be very difficult to tease out the effect of this intervention (preceptor focus group, 2006).*
In the second year of the project, many students reported a positive impact on the patient’s ability to self-manage their illness. For example, one student team reported that they consulted occupational therapy and developed a tool that permitted a stroke patient to brush his own teeth – a self-identified goal. Another student team reported that they had collaborated on a plan to assist a palliative care patient work in his garden – a self-identified goal.

- **Challenges/barriers to positive patient outcomes**

  One barrier to positive patient outcomes was time. It was very challenging for the student team to make a positive impact on health in 4 hours/week over eight weeks. Another challenge was the student perception that they were not a part of the “real” team, they were not involved in ordering test, consults, or developing patient plans – they were learners. The students shared that they sent letters to the family doctor summarizing their comments. However they acknowledged that their report was repetitive. Some students felt involvement in the Seamless Care project was sometimes overwhelming and repetitive for patients. “They were asked the same questions a hundred times. …I think that is why our first patient dropped out. They didn’t want to go through the whole process again (student focus group interview).

- **Changes in patient satisfaction.**

  In both years of the project, patients were interviewed immediately following the student team intervention and three months later. In the second year of the intervention, patients’ rated their satisfaction and confidence to self-manage symptoms, activities of daily living and emotions at the beginning (baseline) and immediately following the eight week intervention.

- **Influence of patients on the education process.**

  Patients were the central focus of the student team interaction. In both years of the project, student teams collaborated with the patient on a plan of care. Patient representatives also participated on the Seamless Care Steering Committee. One
CONCLUSIONS AND RECOMMENDATIONS

Experiential IPE is effective. When placed together in the clinical setting, health professional students learn with, from and about each and are modeled in interprofessional collaborative practice. Experiential IPE requires students to work with “real” patients and the focus on self-management brings home the meaning of interprofessional patient-centred collaborative practice. Patients enjoyed working with interprofessional student teams but did not report that the students had an impact on their health. Although it is effective, experiential IPE is administratively challenging. Academic schedules and clinical requirements for licensure differ across health professional programs. Furthermore, facilitating experiential IPE must be learned and can be burdensome to clinical preceptors already providing care in the clinical setting.

<table>
<thead>
<tr>
<th>Actionable Message</th>
<th>Based on the Following Project Data</th>
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<tbody>
<tr>
<td>Integrate experiential IPE in the curriculum of the health professional programs with dedicated clinical time</td>
<td>Academic schedules differed across the health professional programs and it was difficult for students to get together</td>
</tr>
<tr>
<td>Assign academic credit to experiential IPE</td>
<td>Participation in the project was “over and above” other academic work</td>
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<tr>
<td>Develop and support the Interprofessional Facilitator (IF) Role</td>
<td>Facilitating IPL need to be learned</td>
</tr>
<tr>
<td>Further develop the self-management scale for future application in interprofessional experiential learning.</td>
<td>Goal setting for patient self-management centred the student teams in the patient perspective</td>
</tr>
<tr>
<td>Health professional programs should take responsibility to train and supply preceptors for experiential IPE</td>
<td>Precepting interprofessional team of students is burdensome for clinicians already providing care for patients</td>
</tr>
<tr>
<td>Establish a joint university-health care institution “home” for IPE to foster collaboration, to support preceptors and to develop clinical sites for IPE</td>
<td>Each site mentored one team of students – clinicians stated that they could not handle more than 1 team – many more sites are needed.</td>
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</table>
REFERENCES


Interprofessional Education

The definition

‘Interprofessional Education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care’

CAIPE 2002
Seamless Care Student Number: _____________________
This is a unique number given to every participant in the Seamless Care project to be used when completing all evaluations.
Purpose of your Student Handbook:

The purpose of your Handbook is to provide easy access to key information about the Seamless Care pilot project to facilitate student learning from the interprofessional team placement in the clinical setting.

This handbook is designed for you to use in the clinical setting.

This handbook does not replace the Student Manual or Student Workbook.

Who uses the Student Handbook:

The Student Handbook is for the students selected to participate in the Seamless Care pilot project. Integrative Preceptors (IPs) and Discipline Preceptors (DPs) may also find it a useful guide and quick reference when working with Seamless Care student teams.

Structure of the Student Handbook:

The Student Handbook contains key information (e.g. roles, WebCT/BLS etc.), important dates, activity checklist and space for planning, reflection and meeting notes. The last page of this handbook is a feedback form. Please complete and return to Tanya Matheson, Project Assistant at the end of your clinical placement. The Seamless Care Office is located in Room C-123, Clinical Research Centre, 5849 University Avenue, Halifax, NS.
Acknowledgements:
Seamless Care Project Team

Financial Support: Production of this publication has been made possible through a financial contribution from Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.

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Seamless Care Project Description:

Seamless care is a 33-month collaborative research project in clinical-based interprofessional education funded by Health Canada. The project partners are Dalhousie University’s School of Nursing and the College of Pharmacy in the Faculty of Health Professions, the Faculty of Medicine, the Faculty of Dentistry and the School of Dental Hygiene, and the clinical partners, Capital District Health Authority and Northwood.

The objectives of this pilot project are to:
1. develop an innovative approach to interprofessional education that prepares pre-licensure health professional for collaborative practice. This pioneering approach will be applied within an evolving model of transition care/integrative service delivery that addresses unmet needs for post-hospital care for significant patient groups;
2. demonstrate the benefits of the educational projects to learners in terms of collaborative care competencies;
3. demonstrate positive patient outcomes from the collaborative transition care model; and,
4. prepare both educators and health care delivery settings to support a sustainable interprofessional learning program for collaborative transition care.

The second interprofessional student team intervention begins in January 2007, with nine clinical sites participating. This intervention builds on the successes of year one and the feedback from the first years participants has been incorporated in the eight-week clinical experience planned for year two of the project.

Participants

Students
45 senior pre-licensure student volunteers are selected to participate in the Seamless Care project. Dental Hygiene, Dentistry, Medicine, Nursing and Pharmacy each contribute up to 9 students.

Patients/Family
All patients are volunteers selected from participating CDHA and Northwood clinical sites. They agree to work with the students in the hospital/facility and at home.

Discipline Preceptors (DPs)
DPs are selected from the academic programs to support students from their respective disciplines. Students meet with their DP at least three times during the 8 weeks (beginning, middle and end) of the student team placement.

Integrative Preceptors (IPs)
IPs are from the clinical sites and guide the multidisciplinary student teams. They are responsible for patient care and act as the patient’s advocate.
Clinical Sites
Centres in the Capital District Health Authority (CDHA) and Northwood participating in the Seamless Care Project are

- Acute Stroke Program
- Capital Health Integrated Palliative Care Services
- Centre for Health Care of the Elderly
- Diabetes Case Management
- Gastroenterology
- Hypertension Clinic
- Heart Failure Clinic
- Northwood
- Physical Medicine & Rehabilitation

Staff
Staff members are employed by Seamless Care and will assist any participant in the project. See the contact section for more information, page 14.

Researchers
An interprofessional research team of 10 members from various health disciplines are involved in the organization and evaluation of the project and the dissemination of the results of the research project.
Seamless Care Interprofessional Education Model
My Role and Responsibility as a Student Participating in Seamless Care

You, the Student have a key role in the Seamless Care Project. As a Student, you will:

- meet with your Discipline Preceptor (DP), prior to the Seamless Care Cycle 2 Orientation, and work with your DP and the other Students from your discipline to develop a description of the discipline scope of practice to share with other Seamless Care Project students and preceptors

- attend/participate in the full-day Seamless Care Orientation, January 6, 2007 and participate in other interprofessional development activities as indicated by your self-assessment of your interprofessional team skills and learning needs

- participate as a member of the interprofessional student team and establish group norms and expectations. Transfer your knowledge previously gained from Tri-IPAAC IPL (collaboration, planning, and use of chair, timekeeper, and recorder during team meetings) to the Seamless Care Student Team Meetings, which may include your Integrative Preceptor (IP)

- attend Student Team Meetings, in person when possible, and participate in the development and implementation of a transition plan of care (including home visit) for the assigned patient/family. In situations where it is not possible for you to participate in person, provide input before and follow-up after each meeting in a timely manner via WebCT/BLS

- attend one Site Grand Rounds and/or Clinical Team Meeting during your 8-week placement and other Site activities as appropriate and in consultation with your IP. This may include preparing an end-of-placement Student Report.

- participate in the WebCT/BLS online discussions to communicate with your fellow Student Team members, your IP (Integrative Preceptor) and DP (Discipline Preceptor), as necessary. Use WebCT/BLS (versus email) as the primary web-based means of communication with members of your Student Team and your Preceptors

- develop attitudes and skills for working as a member of an interprofessional team

- contact your DP for additional resources or support, as necessary. As well, meet with your DP mid-way through the clinical placement to discuss your skill development and respond to specific opportunities for skill development.

- champion interprofessional education within your Student Team and your program.

- maintain patient/family confidentiality during all discussions by using patient pseudonyms.

- communicate opportunities/issues with respect to the Seamless Care Project to the Interprofessional Facilitator or Project Manager

- participate in all activities to evaluate the project, including the group reflective exercise following each team meeting

- adhere to my professional standards of practice and code of ethics of my discipline
Roles and Responsibilities of the Seamless Care Discipline Preceptor:
The Seamless Care Discipline Preceptor (DP) will:

- arrange a meeting with discipline students selected to participate in Seamless Care at the beginning of the project
- work with discipline students to develop a description of their scope of practice to share with other students and preceptors
- attend/participate in the full-day Seamless Care Orientation, January 6, 2007. Participate in other interprofessional development activities as indicated by a self assessment
- at a minimum, meet with discipline students mid-way through the clinical placement to monitor discipline skill development
- champion interprofessional education within your respective programs
- participate in the WebCT/BLS on-line discussions to communicate with discipline students and other preceptors, as necessary. Use WebCT/BLS (versus email) as the primary web-based means of communication with discipline-specific members of the student teams
- respond to student discipline-specific opportunities for discipline skill development
- provide ongoing individual support to discipline-specific students, as appropriate, to develop attitudes and skills for working as a member of an interprofessional team
- provide or direct discipline students to additional resources or support, as necessary
- maintain patient/family confidentiality during all discussions by using patient pseudonyms
- communicate opportunities/issues with respect to the Seamless Care project to the Interprofessional Facilitator or Project Manager
- work closely with the Interprofessional Facilitator to implement the student team placement
- participate in all project evaluation activities

Roles and Responsibilities of the Seamless Care Integrative Preceptor:
The Integrative Preceptor (IP) plays a key role in the Seamless Care Project. The IP is the critical link between the student, the patient and the clinical site. The Seamless Care IP will:

- model and guide students in the development of team skills for both interprofessional learning and patient-centred collaboration
- provide ongoing feedback to the student team based on competencies for interprofessional learning and patient-centred collaboration
• attend/participate in the full-day Seamless Care Orientation January 6, 2007. Participate in other interprofessional development activities as indicated by a self assessment of individual learning needs

• work closely with the Interprofessional Facilitator to implement the student team placement

• identify a potential patient, explain the study and obtain consent from eligible patient (and his/her family)

• be responsible for patient care and provide opportunities for a team of interprofessional students to work with the patient (and family) to develop an integrated transition/continuing plan of care

• act as the patient’s advocate and monitor patient’s comfort level with the student team and intercede as necessary

• supervise the interprofessional student team as its members develop a plan of care and work with the assigned patient (and family if appropriate)

• coordinate the plan of care developed by the student team and the plan of care developed by the care team in the clinical care site

• advocate for the learning needs of the student care team within the clinical care site, and facilitate access for the interprofessional student team to attend rounds, team meetings, home visits, etc.

• provide or direct students to additional resources or support, as necessary

• arrange space in the clinical area for students to work and plan together with and without the Integrative Preceptor

• participate in WebCT/BLS on-line discussions for students and preceptors. Use WebCT/BLS (versus email) as the primary web-based means of communication with members of the student team

• communicate opportunities/issues with respect to the Seamless Care project to the Interprofessional Facilitator or Project Manager

• participate in Seamless Care interprofessional development activities based on a self assessment of individual learning needs

• participate in all evaluation activity, including the review of the Group Reflective Exercise following each team meeting
Roles and Responsibilities of the Seamless Care Interprofessional Facilitator:

The Interprofessional Facilitator (IF) is an important support to the students, Integrative Preceptors and the Discipline Preceptors participating in the Seamless Care Project. The IF is the critical link between the Student participants, the Discipline and Integrative Preceptors and the clinical site. The Seamless Care Interprofessional Facilitator will:

• provide leadership in interprofessional education

• work with the Co-Principal Investigators, Co-applicants and members of the Seamless Care project team to design a plan to facilitate interprofessional education for the participants in Seamless Care

• facilitate the development and implementation of the various interprofessional education activities including, but not limited to, the pre-orientation, orientation and post-orientation activities

• facilitate other interprofessional development activities as indicated by a self-assessment of individual learning needs

• make explicate the expected learning from each educational activity

• model and guide students in the development of team skills for both interprofessional learning and patient-centred collaboration

• provide ongoing feedback to the student team based on knowledge, skills and attitudes for interprofessional learning and patient-centred collaboration

• liaise with Discipline and Integrative Preceptors regarding any questions, issues or concerns arising from their involvement in the Seamless Care Project

• support opportunities for a team of interprofessional students to work with the patient (and family) to develop an integrated transition/continuing plan of care

• support the interprofessional student team and IPs as a plan of care is developed and the team works with the assigned patient (and family)

• advocate for the student care teams and preceptors within the Seamless Care Project

• act as the advocate for Seamless Care participants and monitor the progress of the student team and intercede as necessary

• provide or direct students to additional resources or support, as necessary

• participate in WebCT/BLS on-line discussions for students and preceptors. Use WebCT/BLS (versus e-mail) as the primary web-based means of communication with members of the student team, preceptors and the Seamless Care Team.
My Role and the Team’s Role

My Role: To participate as a member of the interprofessional team

Team’s Role: To collaboratively work together as an interprofessional team to assist a patient making a transition from a hospital setting to home, or from one level of care to another.

Members of your team will:
- Attend and organize meetings
- Share relevant information and evidence
- Develop an interprofessional transition plan of care and monitor attainment of goals
- Visit the patient in the clinical area and at home
- Complete all required documentation
- Share knowledge and keep members of the team informed regarding their patient assessment, goal setting and the implementation of the patient plan of care
- Work in consultation with your IP to meet the identified patient goals

What is the Project Objective?

Seamless Care’s Objective: To bring pre-licensure health care professional students together to learn to work as a collaborative interprofessional team to improve patient care when transitioning from an acute care setting to home or from one level of care to another.

Team Learning Objectives:

1. Participate in all assigned and team-initiated activities over an eight-week period.

Engage with team members in patient-centred interprofessional collaborative practice with respect to:
   a. Professional role demarcation versus role blurring
   b. Team skills
   c. Communication skills
   d. Conflict resolution skills
   e. Leadership skills

See Hall & Weaver, 2001 for more information.

2. Demonstrate an understanding of the seven essential elements of team collaboration:
   a. Mutual trust and respect
   b. Autonomy
   c. Responsibility
   d. Communication
   e. Coordination
   f. Assertiveness
   g. Cooperation

See Way & Jones, 2000 for an explanation of the seven elements.

Personal Learning Objective(s):
Think about what you want to learn from participating in this Seamless Care experience and identify your own personal learning objective(s) for this eight week placement.
BLS:

WebCT (Web Course Tools) is a set of educational tools that facilitate learning, communications and collaboration through the use of the Internet and computers and is an integral part of this project.

The WebCT site includes:

- clinical site information
- project resources
- online project surveys
- discussions area

All students will use BLS for group communication, posting articles and for information about meetings and general information.

Once your team is initiated, you will be able to access the Seamless Care BLS site by using an Internet browser, such as Internet Explorer, to go to www.ilo.acs.dal.ca and selecting the BLS server option at that site.

Your BLS username is the first part of your xxxxxxxx@dal.ca email address up to 8 characters. Your password is the same as your email password and is case-sensitive as well.
Meetings:
Meetings involve coming together for planning or exchange of information regarding the project and consist of 2 or more members of the team, and may or may not include the IP.

For this project a meeting can be held:

Face to face
By teleconference (contact the Seamless Care office to set-up)
On BLS
Any other method that supports an exchange of information.

Important Meeting Information:
- Meetings are to be lead by student members, however they can be facilitated by your IP.

- Not all team members are required (or expected) to be present to hold a meeting. Missing team members should provide input and be updated via WebCT.

- At the beginning of your meetings the following roles should be assigned:

Chair:
Facilitates the discussion to encourage participation of all present to:
- determine what information needs to be gathered/considered;
- determine the patient goals (in collaboration with the patient/family);
- develop the team approach and helps ensure that goals take precedence over problems/conflicts.

Recorder:
Clarifies ideas to eliminate vagueness;
- records and posts minutes that summarize the team’s discussion points;
- records and posts action items to be completed.

Timer:
Helps the chair keep the team on task and on time.
- monitors use of time in relation to the meeting agenda;
- identified when the time allocated has been used
- identifies when to move to next topic for discussion
## Important Dates

<table>
<thead>
<tr>
<th>What</th>
<th>When</th>
<th>Where</th>
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</thead>
<tbody>
<tr>
<td>Pre-Surveys</td>
<td>Start of Project</td>
<td>BLS</td>
</tr>
<tr>
<td>Orientation</td>
<td>January 6, 2007 8:00am-3:00pm</td>
<td>Pier 21</td>
</tr>
<tr>
<td>Start 8 weeks</td>
<td></td>
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<tr>
<td>Team Meetings</td>
<td>Through out 8 week period</td>
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<td>Meeting</td>
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<td>Meeting</td>
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<tr>
<td>Workshop</td>
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<tr>
<td>Teaching and Learning in</td>
<td>Jan. 9, 4:00-5:00 or Jan. 10,</td>
<td>Dentistry 1718A</td>
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<td>Interprofessional Groups</td>
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<td>Workshop</td>
<td>Jan. 31, 12:30-2:00 or Feb. 7</td>
<td>Tupper 15-C1</td>
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<td>Reflection</td>
<td>12:30-2:00</td>
<td>VMB 1613B</td>
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<tr>
<td>Workshop</td>
<td>Feb. 27, 4:30-6:00 or Feb. 28</td>
<td>VG Boardroom</td>
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<td>Collaboration as Communication</td>
<td>12:30-2:00</td>
<td>CRC Boardroom</td>
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<tr>
<td>Workshop</td>
<td>Mar. 6, 12:30-2:00 or Mar. 7,</td>
<td>Tupper Sem. Rm. 2</td>
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<tr>
<td>Working Effectively with Conflict</td>
<td>4:30-6:00</td>
<td>Rehab. Edu. Rm. 2</td>
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<td>Workshop</td>
<td>Mar. 20, 12:30-2:00 or Mar. 28</td>
<td>Bethune 378</td>
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<tr>
<td>Learning Styles and</td>
<td>4:30-6:00</td>
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<tr>
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<tr>
<td>Learning</td>
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<td>End of 8 weeks</td>
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<tr>
<td>Post-Surveys</td>
<td>Following your 8-week</td>
<td>BLS</td>
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<td>participation</td>
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<td>Focus Groups</td>
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<tr>
<td>3-Month Post Surveys</td>
<td>July 2007</td>
<td>BLS</td>
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<td>Payment of $150</td>
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<td>Mailed</td>
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Resources

- **WebCT** – Online resource containing information on the project, evaluation surveys and an area to post message with other team members (see section on WebCT for more information).

- **Student Handbook** – Paper resource containing summary information about the project.

- **USB** – A data device containing additional resources and information as well as more detailed information about the project.

- **Text Book** – Text with important information on patient self-management.

- **Workshops** – In person and online workshops will provide a method of professional development to all participants (see section on Workshops for more information)

- **Teleconference** – A resource that allows team members to hold a meeting over the phone (can be set up by contacting the Seamless Care office)

- **Equipment/Resources** – The Seamless Care office has a variety of equipment and recourses to facilitate group meetings and planning.

- **Taxi Chits** – Participants can request and pick up taxi chits at the Seamless Care office to pay for taxi to and from off site meetings related to the project.
**Recommended Reading/Useful websites**


**Seamless Care**

Seamless Care Information Website: [www.seamlesscare.dal.ca](http://www.seamlesscare.dal.ca)

Integrated Learning Online (WebCT/BLS access): [www.ilo.acs.dal.ca](http://www.ilo.acs.dal.ca)

**Partners**

Faculty of Dentistry: [www.dentistry.dal.ca](http://www.dentistry.dal.ca)

Faculty of Medicine: [www.medicine.dal.ca](http://www.medicine.dal.ca)

Faculty of Health Professions: [www.healthprofessions.dal.ca](http://www.healthprofessions.dal.ca)

School of Nursing: [www.nursing.dal.ca](http://www.nursing.dal.ca)

College of Pharmacy: [www.pharmacy.dal.ca](http://www.pharmacy.dal.ca)

Capital Health: [www.cdha.nshealth.ca](http://www.cdha.nshealth.ca)

Northwood: [www.nwood.ns.ca](http://www.nwood.ns.ca)

**Other**

Centre for the Advancement of Interprofessional Education: [www.caipe.org.uk](http://www.caipe.org.uk)
## Contact Information

<table>
<thead>
<tr>
<th>Name &amp; Title</th>
<th>Phone</th>
<th>E-Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Team</strong></td>
<td></td>
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<tr>
<td><strong>IPs</strong></td>
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</tr>
<tr>
<td><strong>Project Staff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Karen Mann</td>
<td></td>
<td><a href="mailto:Karen.Mann@dal.ca">Karen.Mann@dal.ca</a></td>
</tr>
<tr>
<td>Co-Principle Investigator</td>
<td></td>
<td>494-1884</td>
</tr>
<tr>
<td>Ms. Hope Beanlands</td>
<td></td>
<td><a href="mailto:Hope.Beanlands@dal.ca">Hope.Beanlands@dal.ca</a></td>
</tr>
<tr>
<td>Interprofessional Facilitator</td>
<td></td>
<td>494-6929</td>
</tr>
<tr>
<td>Dr. Judy McFetridge-Durdle</td>
<td></td>
<td><a href="mailto:Judith.McFetridge@dal.ca">Judith.McFetridge@dal.ca</a></td>
</tr>
<tr>
<td>Co-Principle Investigator</td>
<td></td>
<td>494-2982</td>
</tr>
<tr>
<td>Dr. Maria Sarria</td>
<td></td>
<td><a href="mailto:Maria.Sarria@dal.ca">Maria.Sarria@dal.ca</a></td>
</tr>
<tr>
<td>Evaluation Coordinator</td>
<td></td>
<td>494-6931</td>
</tr>
<tr>
<td>Ms. Greta Rasmussen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Director</td>
<td></td>
<td><a href="mailto:Greta.Rasmussen@dal.ca">Greta.Rasmussen@dal.ca</a></td>
</tr>
<tr>
<td>Ms. Tanya Matheson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant</td>
<td></td>
<td><a href="mailto:sesmless@dal.ca">sesmless@dal.ca</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>494-6950</td>
</tr>
</tbody>
</table>

### Seamless Care
C123 Clinical Research Centre  
5849 University Avenue  
Halifax, NS B3H 4H7  
Tel: 902 494 6950  
Fax: 902 494 6291  
www.seamlesscare.dal.ca
Project Checklist
All but * to be done in consultation with fellow students and/or your IP

Check what you have completed.

☐ Sign consent form*
☐ Sign CDHA placement (confidentiality) agreement*
☐ Obtain CDHA security ID*
☐ Pre Surveys*
  ☐ Self-Efficacy
  ☐ RIPLS
  ☐ ATHCTS
☐ Meet with DP before start*
☐ Attend orientation
☐ Workshops
  ☐ BLS workshop
  ☐ Teaching and Learning in Interprofessional Groups
  ☐ Reflection
  ☐ Collaboration as Communication: Working in Interprofessional Teams
  ☐ Working Effectively with Conflict in Interprofessional Teams
  ☐ Learning Styles and Interprofessional Team Learning
☐ Patient assessment
☐ Complete Goal Assessment Scale
☐ 6-8 Team Meetings
  ☐ Date: ☐ Date: ☐ Date: ☐ Date:
  ☐ Date: ☐ Date: ☐ Date: ☐ Date:
☐ Record 1st Team Meeting
☐ Record 2nd Team Meeting
☐ Review Goal Assessment
☐ Attend clinical site rounds
☐ Attend primary team meeting
☐ Attend other. Specify ______________________________
☐ Home Visit
☐ Final Report
☐ †Optional: Hand in reflective journal*
☐ Post Surveys*
  ☐ Self-Efficacy
  ☐ RIPLS
  ☐ ATHCTS
☐ Focus Group – April/May 2007*
☐ 3 Month Post Surveys*
☐ Self-Efficacy
☐ RIPLS
☐ ATHCTS
☐ Send current contact information and SIN*
☐ Receive $150 honorarium*

† Reflective Journal
You are encouraged to keep a personal journal of the Seamless Care experience. At the end of the 8 week experience you will be invited to share voluntarily this journal with the research team.

The purpose of the journal is to create a space where you can record experiences and reflect on your interprofessional learning. (e.g. Critical understandings, new learning. Concerns, issues). A special notebook will be distributed for that purpose.
Seamless Care Student Handbook
Feedback Form

Your opinions about the usefulness of this student handbook are important to us. Please take a few minutes and share your ideas for improving this handbook.

1. This student handbook was helpful because.................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................

2. This student handbook would have been more helpful if...........................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................

3. Please indicate on a scale of 1 to 5, (1 being not at all helpful and 5 being very helpful) how helpful this student handbook was to you.

   1  2  3  4  5
   not at all helpful  very helpful

4. Additional comments:........................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................

Please return completed form to Tanya Matheson, Project Assistant, Room C-123, Clinical Research Centre, 5849 University Avenue, Halifax, NS. Thank you for your feedback.
APPENDIX B

Patient Self-Management Scale
Patient Self-Management Scale:

The student team, in collaboration with the patient/family, will identify three self-management goals. Have the patient/family mark each line with a pen, indicating their present level of confidence etc. This self-management scale will be completed three times by the patient/family, before and after and three months following the end of the student team intervention.

**In the box below, please identify your goal to manage your chronic condition.**

Patient goal statement 1:

Please mark on the line below your level of confidence in achieving this goal.

![Confidence Scale 0-10](#)

Please mark on the line below the level of importance you place on achieving this goal.

![Importance Scale 0-10](#)

Please mark on the line below your level of satisfaction with your ability to achieve this goal.

![Satisfaction Scale 0-10](#)
In the box below, please identify your goal to manage your activities of everyday living.

Patient goal statement 2:

---

Please mark on the line below your level of confidence in achieving this goal.

<table>
<thead>
<tr>
<th>0</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>no confidence</td>
<td>complete confidence</td>
</tr>
</tbody>
</table>

Please mark on the line below the level of importance you place on achieving this goal.

<table>
<thead>
<tr>
<th>0</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>no importance</td>
<td>extreme importance</td>
</tr>
</tbody>
</table>

Please mark on the line below your level of satisfaction with your ability to achieve this goal.

<table>
<thead>
<tr>
<th>0</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>no satisfaction</td>
<td>complete satisfaction</td>
</tr>
</tbody>
</table>
In the box below, please identify your goal to deal with your emotions.

Patient goal statement 3:

Please mark on the line below your level of confidence in achieving this goal.

<table>
<thead>
<tr>
<th>0</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>no confidence</td>
<td>complete confidence</td>
</tr>
</tbody>
</table>

Please mark on the line below the level of importance you place on achieving this goal.

<table>
<thead>
<tr>
<th>0</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>no importance</td>
<td>extreme importance</td>
</tr>
</tbody>
</table>

Please mark on the line below your level of satisfaction with your ability to achieve this goal.

<table>
<thead>
<tr>
<th>0</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>no satisfaction</td>
<td>complete satisfaction</td>
</tr>
</tbody>
</table>

This Patient Self-Management Scale has been *adapted from the Canadian Occupational Performance Measure (COPM).
# Seamless Care Goal Measurement Template

Patient:

<table>
<thead>
<tr>
<th>Goal</th>
<th>Pre-intervention Date</th>
<th>Post-intervention Date</th>
<th>Change Score</th>
<th>Total Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illness/Symptom Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal ADL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal</th>
<th>Confidence</th>
<th>Importance</th>
<th>Satisfaction</th>
<th>Confidence</th>
<th>Importance</th>
<th>Satisfaction</th>
<th>Change Score</th>
<th>Importance</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illness/Symptom Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal ADL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

Team Reflective Exercise
Team Reflective Exercise

Instructions: Please allow time at the end of each team meeting, with or without your Integrative Preceptor, to complete this Team Reflective Exercise. For each team, there should be one completed form; therefore, the team should select a recorder whose responsibilities include returning this form to the Seamless Care office.

As a group, discuss and rate how your team has worked together since the last team meeting and in today’s meeting.

Since our last meeting*,

<table>
<thead>
<tr>
<th></th>
<th>Little or not at all</th>
<th>Somewhat</th>
<th>Very well</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>we identified what the team members needed to learn</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>we communicated effectively among the team members</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>we divided the tasks effectively among the team members</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>we resolved any problems in working together as a team</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>we learned</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. from each other</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. about each other</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. with each other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>we collaborated on meeting the patient’s needs</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>we were patient-centred in our work</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>we accessed resources effectively</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>we showed respect for all professions</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>we met our team objectives</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

*For the Seamless Care project, a meeting is defined as an occasion when people actively communicate together, such as a face-to-face meeting, a teleconference or video conference, and an online real-time chat.

Ideas for improving our team work:

Other comments:

Return the completed form to:  Ms. Tanya Matheson  
Seamless Care IPE, Dalhousie University  
Room C123, 5849 University Avenue, Halifax, NS B3H 4H7  Fax: 494-2278
APPENDIX D

Professional Development Modules

- **Teaching and Learning in Interprofessional Groups**, presented by Blye Frank, Ph.D. This module covered how being a member of an interprofessional team can be stimulating, enlightening and satisfying. This session addressed the following questions: How do you accommodate the different professional backgrounds and styles of the various team members? Are there perceived hierarchies in the team and how do you deal with these? How does diversity affect the team’s function? How do you encourage the “passive” member to participate more actively? How do you encourage a “domineering” team member to step back and allow others to contribute?

- **Reflective Practice in our Learning**, presented by Karen Mann, Ph.D. This workshop helped to develop a better understanding of reflection and reflective practice. Through discussion and looking at personal experiences in teaching and learning participants’ had the opportunity to explore: reflection and reflective practice; their experience with reflection; how reflection could benefit learning and practice; factors that hinder and enhance reflection and ways to use reflection.

- **Collaboration as Communication: Working in Interprofessional Teams** facilitated by Joan Evans PhD, RN. This workshop was designed to enhance participants’ communication skills in working as members of an interprofessional team. This workshop will combined didactic content with opportunities for individual interaction and group participation. The workshop was one hour and 30 minutes with an additional 30 minutes those for participants who chose to remain for post workshop discussion. By the end of the workshop, participants were expected to: develop an understanding of communication as a core competency for effective interprofessional practice; identify communication challenges to working across differences of discipline; become familiar with strategies for giving and receiving feedback as a means of building strong interprofessional team communication; to practice communication feedback skills.

- **Working Effectively with Conflict in Interprofessional Teams** presented by Jeanie Cockell, PhD. In this interactive and participatory workshop participants explored how to work with conflict effectively in their interprofessional teams. Building on their own experiences, participants will
identified: sources of conflict, factors involved in conflict, different conflict styles and ways to work effectively with conflict.

- **Learning Styles and Interprofessional Team Learning** facilitated by Jeanie Cockell, PhD. Team learning is a result of individuals learning together effectively. Effective team learning is demonstrated by good communication, effective use of conflict, solving problems and achieving team goals. In order to learn together team members need to understand differences in individual preferred learning styles. In this interactive session participants identified their own preferred learning style, characteristics of 4 different learning styles, how to work with the strengths of different learning styles, ways to work effectively with different learning styles to enhance team learning and outcomes.
## APPENDIX E

### Observation Guide for Student Team Function

<table>
<thead>
<tr>
<th>Student Team ___________________</th>
<th>Date __________</th>
<th>√</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

### DOMAIN 1: BASIC INFORMATION

**Gender and Profession Composition during the meeting**

- **Nursing**
  - Male
  - Female
- **Dental Hygiene**
  - Male
  - Female
- **Pharmacy**
  - Male
  - Female
- **Medicine**
  - Male
  - Female
- **Dentistry**
  - Male
  - Female

- # of Males in the team ( ) From _______ # of Females ( )

**Location**

- Clinical Site (Conference room, patient room)
- University (Library, reserved room)
- Local Coffee Shop
- Teleconference
- Virtual Meeting through WebCT

**Purpose of the meeting**

- Introductions and logistics
- Visiting the patient (home or hospital)
- Sharing information on the patient.
- Sharing information on the research done on the patient condition
- Clarifying ideas regarding the patient needs and wants.
- Organizing future actions with the patient.
- Brainstorming and deciding how to add to the care of the patient.
- Updating team members on patient status, new developments.
- Sharing new medications and treatments that may help the patient.
- Preparing a report (for the family physician & the project) other:

### DOMAIN 2: ON TEACHING & LEARNING

**Learning Environment**

- Environment of respect and collegiality
- All participants expressed their opinions
- Is the environment set for valuing diversity and multiple perspectives

**Preceptor Functions and Style**

- Role Modeled collaboration
- Seize opportunities for reflection? To surface issues?
- Stimulate discussion?
- Control the meeting?
- Facilitator explores areas outside his/her area of expertise and consider self as “learner”
- Attitude: enthusiastic- Busy- Sarcastic- Businesslike -Engaged

<table>
<thead>
<tr>
<th>Student Team _________________</th>
<th>Date __________</th>
<th>√</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>
### Interprofessional learning

Students learn **from** each other  
Students learned **about** each other  
Students learned **with** each other  

### DOMAIN 3: TEAM WORK & LEADERSHIP

**Phrase of Group development:**

- **FORMING**
- **STORMING**
- **NORMING**
- **PERFORMING**
- **ADJOURNING**

**Power Distribution**

- Chair of the meeting:
  - “Air time” dominance:
  - Who coordinates future activities?:
  - Is there a team leader? Who?:

**Challenges**

- Unfamiliar Vocabulary for a team member?  
- Unfamiliar content for a team member?  
- Conflict among team members?  
- Negotiations are made in a : Positive / Negative manner  
- Different professional views on topics such as: safety, privacy etc surfaced?  
- Overlapping competences exposed?  
- Team member feeling underutilized?  
- Team member feeling they are doing everything?  

**Student Attitudes**

- All members actively engage on task?  
- Is somebody bored?  
- Is somebody feeling frustrated? Why?  
- Student attitudes towards the patient. Please Explain

**Socialization**

- Do participants socialize informally? Who socialize with whom?
Comments and Description of the Student Team Meeting/Facilitator Behaviors/ Team Interactions / The patient / Team Reflective Exercise:
### APPENDIX F

**Readiness for Interprofessional Learning (RIPLS) for Faculty**

**Instructions:** Please check the box with the response that best reflects your beliefs.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Learning with other students will help health professions students to become a more effective member of a health care team.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Patients would ultimately benefit if health care students worked together to solve patient problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Shared learning with other health care students will increase the students’ ability to understand clinical problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Learning with health care students before qualification would improve relationships after qualification.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Communication skills should be learned with other health care students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Shared learning will help students to think positively about other professionals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>For small group learning to work, students need to trust and respect each other.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Team-working skills are essential for all health care students to learn.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Shared learning will help students to understand their own limitations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>It is not necessary for undergraduate health care students to learn together.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Clinical problem-solving skills can only be learned with students from ones own discipline.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Shared learning with other health care students will help them to communicate better with patients and other professionals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I would welcome the opportunity to work on small-group projects with other health care professionals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Shared learning will help clarify the nature of patient problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Shared learning before qualification will help students become better team workers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX G
Self-efficacy for Interprofessional Experiential Learning (SEIEL)

Instructions: Using the following scales, please rate your confidence in your ability to carry out some aspects of your role as a student for interprofessional learning: 1 represents very low confidence in your ability and 10 represents high confidence in your ability. For your reference interprofessional team refers to a team made up of individuals of different professions.

1. **Working with other students from different professions to form a team.**
   1 2 3 4 5 6 7 8 9 10
   (Low confidence) (Good) (High confidence)

2. **Working with other students from different professions to resolve problems in the team.**
   1 2 3 4 5 6 7 8 9 10
   (Low confidence) (Good) (High confidence)

3. **Working with other students from different professions to develop a realistic appropriate patient care plan.**
   1 2 3 4 5 6 7 8 9 10
   (Low confidence) (Good) (High confidence)

4. **Working with other students from different professions to understand our respective roles in an interprofessional team.**
   1 2 3 4 5 6 7 8 9 10
   (Low confidence) (Good) (High confidence)

5. **Working with other students from different professions to understand the benefits to patients of team care.**
   1 2 3 4 5 6 7 8 9 10
   (Low confidence) (Good) (High confidence)

6. **Understanding and discussing the objectives of interprofessional learning.**
   1 2 3 4 5 6 7 8 9 10
   (Low confidence) (Good) (High confidence)

7. **Interacting with students from other professions and disciplines than my own.**
   1 2 3 4 5 6 7 8 9 10
   (Low confidence) (Good) (High confidence)

8. **Providing feedback to an interprofessional team on our function and work as a team.**
9. Providing feedback to individual team members of an interprofessional team on their function and work on the team.

10. Helping clinical sites understand an interprofessional team’s role in a clinical setting.

11. Helping the patient to understand the objectives of the interprofessional learning.

12. Evaluating the quality of the work as an interprofessional team.

13. Evaluating the degree to which an interprofessional team has achieved its goals.

14. Learning together cooperatively with students from other professions.

15. Communicating effectively with other members of an interprofessional team.

16. Interacting with teachers and preceptors from other professions and disciplines than my own.
APPENDIX H

Self-efficacy for Facilitating Interprofessional Experiential Learning (SEFEIL) for Integrative Preceptors

Please use the scale to indicate your confidence in your ability to carry out the following aspects of your role as a preceptor for interprofessional learning in a scale of 1-10, where 1 represents very low confidence in your ability and 10 represents high confidence in your ability. For your reference interprofessional team refers to a team made up of individuals from different professions.

1. Helping students from different professions to form a team.
   1  2  3  4  5  6  7  8  9  10
   (Low confidence) (High confidence)

2. Helping students from different professions to resolve problems in an interprofessional team.
   1  2  3  4  5  6  7  8  9  10
   (Low confidence) (High confidence)

3. Helping students from different professions to develop a realistic appropriate patient care plan.
   1  2  3  4  5  6  7  8  9  10
   (Low confidence) (High confidence)

4. Helping students from different professions to understand their respective roles in an interprofessional team.
   1  2  3  4  5  6  7  8  9  10
   (Low confidence) (High confidence)

5. Helping students from different professions to understand the benefits to patients of team care.
   1  2  3  4  5  6  7  8  9  10
   (Low confidence) (High confidence)

6. Explaining and discussing the objectives of interprofessional learning.
   1  2  3  4  5  6  7  8  9  10
   (Low confidence) (High confidence)

7. Interacting with clinicians and/or faculty members* from other professions and disciplines than my own.
   1  2  3  4  5  6  7  8  9  10
   (Low confidence) (High confidence)

   * Clinicians and/or faculty members may be from any of the health professions.

8. Providing feedback to an interprofessional team on their function and work as a team.
   1  2  3  4  5  6  7  8  9  10
   (Low confidence) (High confidence)

9. Providing feedback to individual team members of an interprofessional team on their function and work on the team.
10. Helping clinical sites understand an interprofessional team's role in a clinical setting.
   1 2 3 4 5 6 7 8 9 10 (Low confidence) (High confidence)

11. Helping the patient to understand the objectives of the interprofessional learning.
   1 2 3 4 5 6 7 8 9 10 (Low confidence) (High confidence)

12. Evaluating the quality of the work as an interprofessional team.
   1 2 3 4 5 6 7 8 9 10 (Low confidence) (High confidence)

13. Evaluating the degree to which an interprofessional team has achieved its goals.
   1 2 3 4 5 6 7 8 9 10 (Low confidence) (High confidence)

14. Helping students to evaluate the quality of their work as an interprofessional team.
   1 2 3 4 5 6 7 8 9 10 (Low confidence) (High confidence)

15. Helping students to evaluate the degree to which they have met their objectives in an interprofessional team.
   1 2 3 4 5 6 7 8 9 10 (Low confidence) (High confidence)

Self-Efficacy for Facilitating Interprofessional Learning (SEFEIL) for Discipline Preceptors.

Please use the scale to indicate your confidence in your ability to carry out the following aspects of your role as a preceptor for interprofessional learning in a scale of 1-10, where 1 represents very low confidence in your ability and 10 represents high confidence in your ability. For your reference interprofessional team refers to a team made up of individuals from different professions.

1. Helping students from my profession to form a team.
   1 2 3 4 5 6 7 8 9 10 (Low Confidence) (High Confidence)

2. Helping students from my profession to resolve problems in an interprofessional team.
   1 2 3 4 5 6 7 8 9 10 (Low Confidence) (High Confidence)

3. Helping students from my profession to develop a realistic appropriate patient care plan.
   1 2 3 4 5 6 7 8 9 10 (Low Confidence) (High Confidence)
4. Helping students from my profession to understand their respective roles in an interprofessional team.
   1 2 3 4 5 6 7 8 9 10
   (Low Confidence) (High Confidence)

5. Helping students from my profession to understand the benefits to patients of team care.
   1 2 3 4 5 6 7 8 9 10
   (Low Confidence) (High Confidence)

6. Explaining and discussing the objectives of interprofessional learning.
   1 2 3 4 5 6 7 8 9 10
   (Low Confidence) (High Confidence)

7. Interacting with clinicians and/or faculty members* from other professions and disciplines than my own.
   1 2 3 4 5 6 7 8 9 10
   (Low Confidence) (High Confidence)

8. Providing feedback to an interprofessional team on their function and work as a team.
   1 2 3 4 5 6 7 8 9 10
   (Low Confidence) (High Confidence)

9. Providing feedback to individual team members of an interprofessional team on their function and work on the team.
   1 2 3 4 5 6 7 8 9 10
   (Low Confidence) (High Confidence)

10. Helping clinical sites understand an interprofessional team’s role in a clinical setting.
    1 2 3 4 5 6 7 8 9 10
    (Low Confidence) (High Confidence)

11. Helping the patient to understand the objectives of the interprofessional learning.
    1 2 3 4 5 6 7 8 9 10
    (Low Confidence) (High Confidence)

12. Evaluating the quality of the work of an interprofessional team.
    1 2 3 4 5 6 7 8 9 10
    (Low Confidence) (High Confidence)

13. Evaluating the degree to which an interprofessional team has achieved its goals.
    1 2 3 4 5 6 7 8 9 10
    (Low Confidence) (High Confidence)
14. Helping students to evaluate the quality of their work as an interprofessional team.

1 2 3 4 5 6 7 8 9 10
(Low Confidence) (High Confidence)

15. Helping students to evaluate the degree to which they have met their objectives in an interprofessional team.

1 2 3 4 5 6 7 8 9 10
(Low Confidence) (High Confidence)
APPENDIX I

Regional, National and International Presentations
<table>
<thead>
<tr>
<th>Conference / Event</th>
<th>Place</th>
<th>Date</th>
<th>Peer Reviewed? (√ if yes)</th>
<th>Proposal Title</th>
<th>Authors</th>
<th>Proposal Format &amp; Status</th>
<th>Attended Conference</th>
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<tbody>
<tr>
<td>Dalhousie University Health Human Resources Innovation Conference</td>
<td>Halifax</td>
<td>Sept 20, 2005</td>
<td>√</td>
<td>Seamless Care: Interprofessional Education for Innovative Team-Based Transition Care</td>
<td>JMcFetridge-Durdle</td>
<td>Paper</td>
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<tr>
<td>Division of Medical Education</td>
<td>Halifax</td>
<td>Oct 31, 2005</td>
<td>NO</td>
<td>Seamless Care: Interprofessional Education for Innovative Team-Based Transition Care</td>
<td>KMann</td>
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<tr>
<td>Dental Association of Nova Scotia</td>
<td>NS</td>
<td>Jan 2006</td>
<td>NO</td>
<td>Seamless Care: Interprofessional Education for Innovative Team-Based Transition Care</td>
<td>HRyding</td>
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<tr>
<td>All Together Better Health III: challenges in interprofessional education and practice</td>
<td>London, UK</td>
<td>April 10-12 2006</td>
<td>√</td>
<td>Implementing Change through Collaboration--Seamless Care: Interprofessional Education for Innovative Team-Based Transition Care</td>
<td>1 G Rasmussen 2 J McFetridge-Durdle 3 S Phillip 4 K Mann</td>
<td>Paper Accepted.</td>
<td>G Rasmussen</td>
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<tr>
<td>All Together Better Health III: challenges in interprofessional education and practice</td>
<td>London, UK</td>
<td>April 10-12 2006</td>
<td>√</td>
<td>Challenges to implementation of Seamless Care: An interprofessional education project for innovative Team-Based Transition Care</td>
<td>1 J McFetridge-Durdle 2 K Mann 3 H Ryding 4 A Godden-Webster 5 M Sarria</td>
<td>Poster Accepted.</td>
<td>J McFetridge-Durdle M Sarria</td>
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<td>Date</td>
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<td>Proposal Title</td>
<td>Authors</td>
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<tr>
<td>DME (7th Annual Symposium on Medical/Health Professions Education)</td>
<td>Halifax</td>
<td>April 21, 2006</td>
<td>√</td>
<td>Mix and Stir: Preparing students and preceptors in the Medical, Dental and Health Professions for interprofessional clinical placements.</td>
<td>1 A Godden-Webster, 2 B Frank, 3 G Rasmussen</td>
<td>Poster</td>
<td>A Godden-Webster, B Frank</td>
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<td>DME (7th Annual Symposium on Medical/Health Professions Education)</td>
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<td>April 21, 2006</td>
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<td>Human Research Protection in Interprofessional Education Research: Research Ethics, Planning Research, and Preparing Protocols for IRBs</td>
<td>1 M Sarria, 2 K Mann, 3 G Rasmussen, 4 J McFetridge-Durdle</td>
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<td>DME (7th Annual Symposium on Medical/Health Professions Education)</td>
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<td>April 21, 2006</td>
<td>√</td>
<td>Moving Interprofessional Learning into the Real-World.</td>
<td>1 F Mitchell, (Pharmacy student), 2 F M Mydeen (Med Student), 3 G Rasmussen</td>
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<td>Dalhousie Conference on Teaching and Learning (National)</td>
<td>Halifax</td>
<td>May 2-4, 2006</td>
<td>√</td>
<td>Interprofessional Education for Health Professions Students: The “Seamless Care” Model.</td>
<td>1 KMann, 2 JMcFetridge-Durdle, 3 HRyding, 4 MSarria, 5 AGodden-Webster</td>
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<td>Dalhousie University, Tri-IPAAC Retreat</td>
<td>Halifax, NS</td>
<td>May 4, 2006</td>
<td>NO</td>
<td>An overview of the Seamless Care Project</td>
<td>1 G Rasmussen</td>
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<td>Halifax County Dental Association</td>
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<td>April 19, 2006</td>
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<td>An overview of the Seamless Care Project</td>
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<td>The Association of University Programs in Health Administration</td>
<td>Seattle</td>
<td>June 24, 2006</td>
<td>NO</td>
<td>Interprofessional and Interdisciplinary Research Education at Dalhousie University</td>
<td>GJohnston, GRasmussen, PMcIntyre</td>
<td>Paper</td>
<td>GJohnston, GRasmussen (teleconference)</td>
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<td>Authors</td>
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<td>Atlantic Provinces Primary Health Care Conference</td>
<td>Moncton</td>
<td>June 12-14</td>
<td>NO</td>
<td>An Overview of Nova Scotia Interprofessional Education Programs</td>
<td>JSargeant GMurphy</td>
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<td>AMEE 2006</td>
<td>Genoa, Italy</td>
<td>Sept 14-18, 2006</td>
<td>✓</td>
<td>(conference on medical and health professions education)</td>
<td>K Mann JMcFetridge-Durdle PMcIntyre JVersnel</td>
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<td>Canadian Cardiovascular Nursing</td>
<td>Vancouver</td>
<td>Oct 2006</td>
<td>✓</td>
<td>Seamless Care: Interprofessional Education for Innovative Team-Based Transition Care</td>
<td>J McFetridge-Durdle</td>
<td>Not Accepted</td>
<td>n/a</td>
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<td>Society for Medical Decision Making Note: $50 submission fee</td>
<td>Boston</td>
<td>Oct 14-18, 2006</td>
<td>✓</td>
<td>Preparing Student Health Professionals for Interdisciplinary collaboration &amp; enhancement of patient decision making</td>
<td>JVersnel PMcIntyre RHorton JMcFetridge-Durdle</td>
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<td>Canadian Association of Public Health Dentistry</td>
<td>St. John’s</td>
<td>Aug 24-26</td>
<td>✓</td>
<td>Seamless Care: Interprofessional Education for Innovative Team-Based Transition Care</td>
<td>JClovis</td>
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| Practice Makes Perfect – Education of Health Professionals in Community, Clinical and Simulated Settings | Vancouver, BC   | Nov 4 – 7 07     | ✓                         | Seamless Care: An experiential model of interprofessional education to promote collaborative patient-centred care | Judith McFetridge-Durdle  
Karen Mann  
Joanne B. Clovis  
Blye Frank  
Susan Mansour  
Ruth Martin Misener  
Greta Rasmussen  
Helen Ryding  
Joan Versnel  
Lucille Wittstock  
Hope Beanlands  
Maria Sarria  
Tanya Matheson | Presentation Accepted |
Judith McFetridge-Durdle  
Hope Beanlands  
Karen Mann  
Susan Mansour  
Sandra Duke  
Nila Ipson | Presentation Accepted |
Judith McFetridge-Durdle  
Ruth Martin Misener  
Joan Versnel  
Maria Sarria  
Paul McIntyre | Interactive Poster Accepted |
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<th>Proposal Title</th>
<th>Authors</th>
<th>Proposal Format &amp; Status</th>
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<td>Vancouver, BC</td>
<td>Nov 4 – 7 07</td>
<td>✓</td>
<td>Critical Literacy Meets Interprofessional Education</td>
<td>Blye Frank, Karen Mann, Judith McFetridge-Durdle, Ruth Martin Misener, Hope Beanlands, Maria Sarria</td>
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<td>Practice Makes Perfect – Education of Health Professionals in Community, Clinical and Simulated Settings</td>
<td>Vancouver, BC</td>
<td>Nov 4 – 7 07</td>
<td>✓</td>
<td>“Seamless Care: Interprofessional Education” and the Development, Content Validation and Reliability Study of New Evaluation Instruments for Preceptors on Interprofessional Education.</td>
<td>Maria Sarria, Karen Mann, Judith McFetridge-Durdle, Joanne B. Clovis, Ruth Martin Misener, Lucille Wittstock, Helen Ryding</td>
<td>Interactive Poster Accepted</td>
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<td>Practice Makes Perfect – Education of Health Professionals in Community, Clinical and Simulated Settings</td>
<td>Vancouver, BC</td>
<td>Nov 4 – 7 07</td>
<td>✓</td>
<td>Dentistry and dental hygiene: Partners in interprofessional education to promote collaborative patient-centred care.</td>
<td>Joanne B. Clovis, Cynthia L. Andrew, Helen Ryding, Judith McFetridge-Durdle, Karen Mann</td>
<td>Interactive Poster Accepted</td>
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<td>Collaborating Across Borders: An American-Canadian Dialogue on Interprofessional Health Education</td>
<td>Minneapolis, Minnesota</td>
<td>October 24-26, 2007</td>
<td>✓</td>
<td>Observation as a research tool in interprofessional education: Development of an Observation Guide for student interprofessional teams</td>
<td>Karen Mann, Judith McFetridge-Durdle, Maria Sarria, Hope Beanlands, Ann Bannon</td>
<td>15-minute workshop</td>
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<td>Collaborating Across Borders: An American-Canadian Dialogue on Interprofessional Health Education</td>
<td>Minneapolis, Minnesota</td>
<td>October 24-26, 2007</td>
<td>✓</td>
<td>Seamless Care: Interprofessional Education and the Development, Content Validation and Reliability Study of a New Evaluation Instrument for Students.</td>
<td>Karen Mann, Judith McFetridge-Durdle, Maria Sarria, Pantelis Andreou</td>
<td>30-minute paper</td>
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<td>Collaborating Across Borders: An American-Canadian Dialogue on Interprofessional Health Education</td>
<td>Minneapolis, Minnesota</td>
<td>October 24-26, 2007</td>
<td>✓</td>
<td>Patient Self-management: Sharing the Experience of Goal Setting</td>
<td>Hope Beanlands, Joan Versnel, Judith McFetridge-Durdle, Alice Veinotte, Jen Ping Lee, Sandra Duke</td>
<td>Format to be confirmed</td>
<td>Accepted</td>
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<td>Collaborating Across Borders: An American-Canadian Dialogue on Interprofessional Health Education</td>
<td>Minneapolis, Minnesota</td>
<td>October 24-26, 2007</td>
<td>✓</td>
<td>Interprofessional Education Research &amp; Research Ethics Board - The case of Seamless Care-Interprofessional Education.</td>
<td>Maria Sarria, Karen Mann, Judith McFetridge-Durdle</td>
<td>Format to be confirmed</td>
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<td>Conference / Event</td>
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<td>Proposal Title</td>
<td>Authors</td>
<td>Proposal Format &amp; Status</td>
<td>Attended Conference</td>
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<td>Minneapolis, Minnesota</td>
<td>October 24-26, 2007</td>
<td>✓</td>
<td>Listening to the Voices of Learners: Insights and Actions</td>
<td>Hope Beanlands Susan Mansour Tanya Matheson Maria Sarria</td>
<td>Format to be confirmed</td>
<td>Accepted</td>
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<tr>
<td>8th Annual Symposium on Medical/Health Professions Education and Interprofessional Learning</td>
<td>Halifax, NS</td>
<td>May 11, 2007</td>
<td>✓</td>
<td>Seamless Care: Strategies for Building Interprofessional Practice Education Cultures and Capacity;</td>
<td>Hope Beanlands Joan Versnel Blye Frank Lucille Wittstock Greta Rasmussen Stephen Phillips Karen Legg Jackie Jayasinghe Rosalind Benoit</td>
<td>Presentation Accepted</td>
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<td>8th Annual Symposium on Medical/Health Professions Education and Interprofessional Learning</td>
<td>Halifax, NS</td>
<td>May 11, 2007</td>
<td>✓</td>
<td>Seamless Care: Interprofessional Education and the Development, Content Validation and Reliability Study of New Evaluation Instruments for Preceptors in Interprofessional Education</td>
<td>Maria Sarria Karen Mann Judith McFetridge-Durdle Joanne Clovis Ruth Martin Misener Lucille Wittstock Helen Ryding</td>
<td>Presentation Accepted</td>
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<td>8th Annual Symposium on Medical/Health Professions Education and Interprofessional Learning</td>
<td>Halifax, NS</td>
<td>May 11, 2007</td>
<td>✓</td>
<td>The dynamics and challenges of working in an interdisciplinary team to be presented by two students who participated in the Seamless Care project.</td>
<td>Heather Ting Victoria Huzagh</td>
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<td>Dalhousie University, Tri-IPAAC Retreat</td>
<td>Halifax, NS</td>
<td>May 17th, 2007</td>
<td>NO</td>
<td>Seamless Care” - Opportunities for Tri-IPAAC</td>
<td>Judith McFetridge-Durdle</td>
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<td>Hope Beelandlands Tanya Matheson Ann Bannon</td>
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<td>2007 Medical Education Conference</td>
<td>Victoria, BC</td>
<td>May 5 – 9, 2007</td>
<td>✓</td>
<td>Interprofessional Education for Health Professions Students: The Seamless Care</td>
<td>Kim Blake Karen Mann Blye Frank</td>
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<td>From Silos to Collaborative Practice</td>
<td>St. John, NB</td>
<td>Nov 2006</td>
<td>NO</td>
<td>Interprofessional Education: Evidence and Directions</td>
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<td><em>Proceedings of the 2006 Atlantic Universities Teaching Showcase</em></td>
<td>St.John’s, Nfld</td>
<td>October 28, 2006</td>
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<td>Looking for evidence: Evaluative research and the Seamless Care model</td>
<td>Judith McFetridge-Durdle, Dr. Karen Mann, Joanne Clovis, Joan Versnel, Susan Mansour, Blye Frank, Lucille Wittstock, Greta Rasmussen, Ruth Martin Misener, Hope Beanlands</td>
<td>Presentation</td>
<td>Judith McFetridge-Durdle, Joanne Clovis</td>
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## Contributions of the ‘Seamless Care’ Project to the IECPCP Immediate Outcomes

Table 1: The Seamless Care Project: Contributions to IECPCP immediate outcomes, methods of evaluation, and challenges to evaluation

<table>
<thead>
<tr>
<th>Immediate Outcomes (1-2 years)</th>
<th>Our project’s contribution(s)</th>
<th>Methods of evaluation</th>
<th>Challenges to evaluation</th>
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<tbody>
<tr>
<td>Increased awareness by educators and students of benefits of using interprofessional teams</td>
<td>Our intervention placed students in interprofessional teams, who worked together assigned to a patient and/or family. The sites selected were those where collaborative practice was occurring, so that students could observe this in action. The teams were facilitated /precepted by a clinical integrative preceptor, who was selected by the clinical sites. These preceptors reported gaining an understanding of the advantages of interprofessional teams through the eyes of the students.</td>
<td>We used two scales that addressed awareness and readiness: the attitudes to Health Care Teams (Schmidt et al), and the Readiness for interprofessional learning Scale (RIPLS) (Parsell and Blight, 1999). In addition, we adapted the RIPLS for use by our faculty and clinical educators. We also conducted focus groups with students and educators, and interviews. All measures were taken at pretest, immediately following the intervention, and three months following.</td>
<td>We encountered several challenges to evaluation: The lack of existing measures. We could find few scales that had been validated. We therefore created four new measures for our project: The Self-Efficacy for Facilitating Interprofessional Learning Scale (SEFIEL)* The Self-Efficacy for Inter-professional Learning Scale (SEIEL)* The Team Reflective Exercise, for use by student teams* We adapted two other scales: The Patient Self-management Scale* The Readiness for interprofessional learning for Faculty *</td>
</tr>
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<td>Increased awareness by P/Ts of benefits of using interprofessional teams</td>
<td>In addition, the research team utilized measures that were already in use, from the UK and The USA, and incorporated best practices into our project design and evaluation. This has been a part of our dissemination efforts, and will be a part of our sustainability work, including presentations to these groups of our findings.</td>
<td>Indirectly, through Focus group evaluation, and through the completion of the above scales, by those providers involved in the project.</td>
<td>Not formally evaluated.</td>
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<td>Increased awareness by health care providers of benefits of using interprofessional teams</td>
<td>Our intervention was directed mainly to students; however, our preceptors were health care providers, and they expressed support for the need for students to acquire these skills. They also noted that the intervention helped to reinforce for them these benefits, and also highlighted the challenges faced in maintaining effective teams in the current health care delivery system</td>
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<td>Increased awareness by external stakeholders (regulatory bodies, volunteer, professional) of benefits of using interprofessional teams</td>
<td>Our project involved representatives of the voluntary health associations related to the problems of our patients. Our Steering Committee has received the results of our project, and our dissemination plans include further presentations to and meetings with them.</td>
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<td>Increased awareness by patients of benefits of</td>
<td>Each student team was assigned to work with a</td>
<td>Patients were interviewed twice-</td>
<td>Patient interviews were a challenge to arrange.</td>
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<td>Immediate Outcomes (1-2 years)</td>
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<td>using interprofessional teams</td>
<td>patient and/or family.</td>
<td>immediately following and three months after the intervention.</td>
<td>and the health status of a very few patients made follow-up very challenging, and in some cases, impossible.</td>
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<tr>
<td>Increased awareness by health care providers of benefits of using interprofessional teams</td>
<td>Not formally evaluated outside of their preceptor role.</td>
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APPENDIX K

Summary of Qualitative Findings

Overview of the Results

We present here the analysis of our qualitative data. These data arose from focus group and individual interviews with students, preceptors and Faculty participants. In addition, written reflections by students were included. The analysis of the qualitative data was informed by Miles & Huberman (1994). It involved: general review of all data, addition of notes and reflective passages, sorting and coding of data.

The process is diagrammed in Creswell’s (1998, p. 143) “data analysis spiral.”

Students particularly valued the opportunity to learn from others and to gain a first-hand understanding of the scopes of practice of other health professionals. All participants, students, preceptors and patients, seemed to have a better understanding of the work of other health professionals. This was particularly evident in working with students from dentistry and dental hygiene. It was widely reported that participants had a much better understanding of what these professionals can offer in an interprofessional setting following the Seamless Care project.

It was broadly noted that student and preceptor participants sometimes felt that they were lacking direction. Nonetheless, participants agreed that the project was worthwhile and a good learning experience. There was almost unanimous agreement to participate in the program if it were offered again. Likewise, many participants strongly supported the notion of integrating such a program as part of the formal curriculum.

Student Focus Groups – Summary of Analysis

Included in this data set were three focus groups conducted in the second year of our intervention; three student interviews for those unable to participate in the focus groups were also conducted.
The 6 transcripts were read for initial understanding, and then for key reoccurring ideas. These ideas were categorized and sorted according to theme. In order to qualify as a theme, an idea must have been identified by at least three separate participants. Key supporting quotations were identified to corroborate each theme. In general, the themes from the interviews and focus groups were similar. The themes are shown below.

**Themes:**

The data were divided into 17 broad categories.

- General feedback about the project
- What worked?
- Frustrations
- Preceptor (Discipline)
- Preceptor (Integrated)
- The cooperating patient
- Analytical tools
- Orientation
- Compared to the year before
- A broader team
- The role of dentistry and dental hygiene
- Incentive
- Mandatory?
- Realism and an active role
- Being the ‘B’ team
- Not a curricular add-on
- Choosing the right patients

**Key Issues:**

In identifying the themes, above, several key issues for student focus group participants were identified.

**Working in a team** – There was general consensus that students appreciated the opportunity to work in an interprofessional team and described it as a good learning experience and an effective way to learn about the scopes of practice of other health professionals.

**Experiential Learning** – All students, but particularly those in dental hygiene, appreciated the opportunity to “learn by doing” and to learn in a health care setting.

**Seamless Care versus IPL** – Building on the notion of experiential learning, there was widespread consensus that the Seamless Care approach is more engaging and “real” than the case-based Tri-IPAAC IPL sessions.

**ICT** – Although nursing students are comfortable with the technology, the BLS system was the source of frustration for most student participants. Some of this frustration was linked to the lack of comfort with BLS on the part of preceptors. The students felt that preceptors need to be comfortable with the technology. If they’re not comfortable, this hinders communication.

**Lack of Understanding of the Project** - Students felt that there was a general lack of understanding of the overall priorities, goals and structure of the project. It became clear that many people, students and preceptors, felt like they were “winging” it.

**Scheduling** – The scheduling of the intervention was a source of concern, particularly the fact that it’s held during students’ final year of school; however, there was also a sense that there may not be an ideal time for it. Students commented that there is no IPL work occurring during their third years.
Preceptors (Discipline and Integrative) – There was a general sense that the integrative preceptor was a key role. In contrast, the discipline preceptor was “nice to have” but not a widely used resource. While integrative preceptors were widely identified as supportive, there were varying degrees of support identified on the part of discipline preceptors – for example, one student described a discipline preceptor who actually hindered participation. It was also key for preceptors to have an overall understanding of the project.

Orientation – The orientation was widely recognized as useful; but not a fully realized session. Students felt the orientation could have been more productive.

Who Should Be on the Team? Dentistry and Dental Hygiene – Students widely acknowledged that they were initially uncertain about the role of dentistry and dental hygiene in the Seamless Care project. They noted that they learned a great deal about these professions and their scopes of practice. However, most students questioned the exclusion of physiotherapy, social work and occupational therapy, noting that these professions could have benefited their patient.

Incentive – It was acknowledged that participating in Seamless Care is voluntary, but represents a major commitment. Therefore, students recommended some form of incentive for participating. This could take the form of an elective, a monetary incentive, a certificate or a note on a transcript.

General Conclusions:

Students valued the time they spent with their group. They felt that they made at least some difference in the care of their cooperating patients and appreciated the opportunity to learn about the scope of other health professionals’ work. There was some frustration with the project; however, this was largely focused on organization, scheduling and a general sense of not being informed.

Text Sources – Summary of Analysis

Data: Included in this data set were three journals and one set of written feedback.

All three journals were submitted by nursing students.

Themes: The themes and issues were similar to those identified in the focus group and individual interviews. However, the text sources contributed these important observations.

Key Issues:

In identifying the themes, above, several key issues for patient interview participants were identified.

Professional Dynamics – The journals point to underlying conflict, particularly between the professional role of “nurse” and “doctor.”

The Role of Nursing – The nursing role was described as “liquid” and as being one designed to “fill the gaps” that are not addressed by the other healthcare professions.

Not Knowing What’s Going On – There was a feeling in the text sources that these students were also lacking a broad understanding of the overall project and would have appreciated more direction.

General Conclusions:
Journaling appears to be an effective way of collecting rich data with respect to interprofessional dynamics. Journals pointed to underlying conflict and this information was largely absent from other data sources.

**Preceptor Focus Groups – Summary of Analysis**

**Data:**

Included in this data set were three focus groups, including n participating preceptors) These groups were held following the second intervention (April 2007). The analytic process mirrored that of the student data.

**Themes:**

The data were divided into 15 broad categories.

- What worked?
- Frustrations
- Preceptor (Discipline)
- Preceptor (Integrated)
- The Impact of the Cooperating Patient
- Analytical Tools
- Orientation
- Compared to the year before
- Who should be on the team
- Learning about the role of dentistry and dental hygiene
- Incentive
- Scheduling
- Integrated rather than an add-on
- Choosing the right patients
- Preparation to Deal with Emotional Issues

**Key Issues:**

In identifying the themes, above, several key issues for preceptor focus group participants were identified.

**Working in a team** – As with the student focus group participants, there was general consensus that the opportunity to work in an interprofessional team was very beneficial and an effective way to learn about the scopes of practice of other health professionals.

**Nurses are advanced** – There was a feeling among many participants that nursing students are advanced with respect to communication skills and interprofessional learning.

**ICT** – This was a source of frustration for preceptors, but was recognized as a communication mode that has significant potential. Some of the preceptors also perceived that the students “liked” the BLS system and found it user friendly; however, this contradicted the frustrations reported by students.

**Not knowing what’s going on** – As with the student focus group participants, there was a general sense that the preceptors felt that they didn’t understand the project, especially what their role would be. Several participants reported needing more guidance than they received, and feeling “at sea.” IP-GASTRO seemed to be particularly frustrated by this.

**Differing experiences as a preceptor** – There seemed to be a significant difference in the experiences of preceptors. Those who felt the most success were generally those who were involved with the project as a co-investigator or a collaborator, or those who had acted as a preceptor in the 2006 session.
Interprofessional Facilitator (IF) – This was recognized as a very valuable role and a resource upon whom preceptors could rely. The addition of the IF seems to have allowed a “much better” experience in the 2007 session (for those who were involved with the 2006 session).

Dentistry and Dental Hygiene – As with the student focus group participants, the preceptors reported questioning the role of dentistry and dental hygiene, initially. However, they reported learning much about the scopes of practice of these health professionals.

Scheduling – As with the student focus group participants, scheduling the intervention was a source of debate. While it was recognized that final year is a difficult time to attract student participants, some (DP-Nurs, for example) felt that the final year was ideal, because the students had had the opportunity to learn much and work with patients in their earlier years of study.

**General Conclusions:**

In general, preceptors valued the Seamless Care program, and were happy to have participated. Preceptors were pleased with the work accomplished by the students and felt that the students learned much by participating. However, there was a general feeling that more direction would have been beneficial.

**Patient Interviews – Summary of Analysis**

**Data:**

Included in this data set were six interviews: Patients were interviewed in their homes following the intervention, and three months later.

**Themes:**

The data were divided into seven broad categories.

- What worked?
- Didn’t work?
- How to improve the program
- What the patient learned?
- What changed?
- Role of dentistry
- Assisting with care

**Key Issues:**

In identifying the themes, above, several key issues for patient interview participants were identified.

Enjoying the company of the student teams – The overwhelming theme arising from the patient interviews is that the patients enjoyed the company of the students. The patients unanimously identified the students as pleasant and concerned.

Influence on health – The patients generally did not feel that the students had a significant influence on their health. Rather than conceptualizing the students as being involved in order to support the patients’ care, there was some feeling that the patients were involved in order to support the students’ learning.
Analytical tools – For the most part, the patients were not particularly interested in the self-management scale; however, for one patient in particular (PT-REHAB) it was very motivational.

Timing of the intervention – Two patients (PT-STROKE, PT04-HF) had very little memory of the students of the intervention, perhaps due to the timing of the intervention.

**General Conclusions:**

While the Seamless Care project, there was a general sense that the patients didn’t understand the intervention in which they were involved. Nonetheless, the company of the students was very well-received and most patients would agree to participate again. In specific case, the patients identified particular ways in which the student team’s intervention had benefited them.