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Introduction from Rosalie Pederson, Alan Blizzard Award Coordinator

LE PRIX ALAN BLIZZARD



ALAN BLIZZARD AWARD

About the Award

The Alan Blizzard Award was created by the Society for Teaching and Learning in Higher Education (STLHE/SAPES) to honour its past President, Alan Blizzard (1987-1995), on his retirement, for his significant contributions to the Society. Designed to recognize and stimulate collaborative efforts to strengthen and give greater visibility to effective university teaching and learning, the Award encourages and disseminates scholarship in exemplary collaborative teaching and learning. Each year, the team whose project is selected for the Alan Blizzard Award makes a plenary presentation at the Society's annual June conference. A monograph, describing the annual Alan Blizzard Award collaborative project, is circulated to all attending the annual June conference, and to VP Academics of all Canadian universities in the fall.

The concept for the Alan Blizzard Award was developed by a committee including Chris Knapper (President, 1982-1987), Alan Blizzard (President, 1987-1995), Pat Rogers (President, 1995-2000), and Dale Roy (Coordinator, 3 M National Teaching Fellowships Program). The Award is sponsored by McGraw-Hill Ryerson's Higher Education Division. The Society is particularly grateful to Marlene Luscombe of McGraw-Hill Ryerson, for advice in the conceptual stages of the design of the Award and for McGraw-Hill Ryerson's support of this significant program through Patrick Ferrier, President of the Higher Education Division. Over the years, McGraw-Hill Ryerson has supported this Award as part of its commitment to student learning and faculty teaching. <http://www.mcgrawhill.ca/highereducation/educators/>

And the recipients are 2012 are....

Congratulations to the 2012 Alan Blizzard Award recipients from McMaster University for their collaborative work in inter-professional practice education in Health Sciences. This monograph presents their 2012 Alan Blizzard Award project submission, "Development, implementation and evaluation of the Program of Interprofessional Practice Education and Research (PIPER.)" The collaboration began in 2007, driven by the shared vision of faculty members across the educational programs within the Faculty of Health Sciences. The team members are: Bonny Jung (submission coordinator) and Andrew Burke (Department of Medicine, Internal Medicine Residency); Carl deLottinville (Associate Clinical Professor, Department of Psychiatry and Behavioural Neurosciences); Anne Malott (Midwifery Education Program); Denise Marshall (Program for Faculty Development); Beth Murray Davis (Midwifery Education Program); Alan Neville (Education, Faculty of Health Sciences); Jenn Salfi (School of Nursing, Faculty Lead--PIPER), Gillian Schaible (Education Services- PIPER); Dyanne Semogas (School of Nursing); Josh Smalley (Medical Program); Patty Solomon (School of Rehabilitation Science).

With appreciation

I thank Arshad Ahmad, STLHE President, Denise Stockley, STLHE Chair, Teaching Awards, Angie

Thompson, STLHE VP Partnerships, Sylvia Avery, STLHE Administrator, and the six members of the 2012 Selection Committee: Alan Blizzard, Susan McCahan (University of Toronto), Dana Paramskas (University of Guelph), Lynda Weaver (Bruyere Continuing Care, University of Ottawa), Norman Vaughan (Mount Royal University), Gary Schajer (University of British Columbia) and Ted Needham (University of New Brunswick). Their attention, care, and candid deliberations represent the ideal and practice of collaboration that the Alan Blizzard Award celebrates. I also wish to thank John Thompson, past coordinator of the Alan Blizzard Award, for his exceptional mentoring and practical support.

In addition, I would like to recognize the quality of the other five applications received for the award and thank those teams for their outstanding work.

For more information

For more information and guidelines for submitting a nomination for the 2013 Alan Blizzard Award, visit the STLHE website at http://www.stlhe.ca/en/awards/alan_blizzard/index.php

**Rosalie Pederson, Coordinator
Alan Blizzard Award**

2012 Alan Blizzard Award Recipients—Photo

McMaster University—Program for Inter-professional Practice, Education and Research



From left to right: Jenn Salfi, Josh Smalley, Beth Murray-Davis, Anne Malott, Dyanne Semogas, Bonny Jung, Alan Neville, Patty Solomon, Gillian Schaible, Carl DeLottinville.

(Inserts: Denise Marshall and Andrew Burke)

Section A—Collaborating Team

- Bonny Jung, Assistant Professor, Director, School of Rehabilitation Science, Director of PIPER
- Andrew Burke, Medical Resident, Department of Medicine, Internal Medicine Residency Program
- Carl deLottinville, Associate Clinical Professor, Department of Psychiatry & Behavioural Neurosciences
- Anne Malott, Assistant Professor, Midwifery Education Program
- Denise Marshall, Professor and Assistant Dean, Program for Faculty Development
- Beth Murray-Davis, Assistant Professor, Midwifery Education Program
- Alan Neville, Professor and Associate Dean, Education Sciences, Faculty of Health Sciences
- Jenn Salfi, Assistant Professor, School of Nursing, Faculty Lead, PIPER
- Gillian Schaible, Program Coordinator, Education Services, PIPER
- Dyanne Semogas, Assistant Professor, School of Nursing
- Josh Smalley, Medical Student, Medical Program
- Patty Solomon, Professor and Associate Dean, School of Rehabilitation Science

Section B—Nature and Features of Collaboration

The collaboration between the team members of PIPER is an ongoing and dynamic process that involves faculty, students, community partners and staff. See appendix A for the Team Member

The team members are drawn from three clusters of collaborative activities:

- Program for Interprofessional Practice, Education, and Research (PIPER)
- Interprofessional Education Student Events
- Program for Faculty Development

The core PIPER team members include the past and current Directors, Dr. Patty Solomon and Dr. Bonny Jung; the PIPER administrator Gillian Schaible, and PIPER faculty lead, Dr. Jenn Salfi. These members constitute the core team who provides guidance and expertise in inter-professional (IPE) program planning, development, and evaluation; facilitates research initiatives; and provides administrative support to the individual members responsible for the Program for Faculty Development and the Interprofessional Students Events.

Communication and collaboration between all team members occur through a number of formal and informal processes. With respect to formal processes, all team members have been or are currently members of the PIPER Advisory Committee through which they play a critical role in providing input on: short and long term goals; recommendations on structure, policies and procedures; funding opportunities; partnership opportunities; and marketing and communication strategies. The Advisory Committee meets 4 times per year. In addition, regular meetings are held between PIPER faculty and student representatives to discuss upcoming events, determine supports needed and to provide mentorship. Informally, the team members

The Program for Interprofessional Practice, Education and Research (PIPER) was established in 2007, driven by the collaborative vision, planning and dedication of faculty members across the educational programs within the Faculty of Health Sciences (FHS). The overall goal of PIPER is to serve as an organizational structure to foster a culture of inter-professional education (IPE) and inter-professional collaboration (IPC) across the Faculty and to develop inter-professional curricular initiatives.

The team members are drawn from various health professions and programs within the university and, therefore, act as role models who demonstrate collaboration in their daily work. These shared efforts to design and implement IPE within faculty, along with the commitment to the goals of collaboration is what draws this team together.

Section C—Abstract

The Program for Interprofessional Practice, Education and Research (PIPER) was established in 2007, driven by the collaborative vision, planning and dedication of faculty members across the educational programs within the Faculty of Health Sciences (FHS). The overall goal of PIPER is to serve as an organizational structure to foster a culture of inter-professional education (IPE) and inter-professional collaboration (IPC) across the Faculty and to develop inter-professional curricular initiatives.

The complexities of implementing a mandatory IPE curriculum across diverse educational programs were significant. The Faculty of Health Sciences at McMaster brings together over 4000 students from health professional training programs: nursing, physiotherapy, occupational therapy, midwifery, physician assistant, medicine, child life, and graduate studies. The need to develop faculty skills in designing and facilitating IPE was essential to the success of PIPER, which continues to be engaged in promoting widespread cultural change among faculty.

Although PIPER represents a larger organization structure comprised of student learning, faculty development, research, knowledge translation and community partnerships, four key initiatives of the work of the PIPER team are highlighted. These initiatives showcase the development, implementation and evaluation of the Interprofessional Education (IPE) and Interprofessional Collaboration (IPC) culture within the faculty:

Student learning opportunities: Communications skills lab

A learning experience which incorporates standardized patients and feedback from faculty facilitators can promote authentic inter-professional learning, and develop students' confidence to communicate in team environment.

Faculty development: DVDs, IPE workshops

Faculty development is viewed as one of the key strategies in promoting an inter-professional culture within the educational programs. Working in collaboration with the Program for Faculty Development, high quality stimulus videos were developed which formed the basis for discussions in the workshops. The videos portray authentic clinical scenarios of both positive and challenging team interactions.

Team Observed Structured Clinical Encounters (TOSCEs): Formative and summative learning tool

The Team Observed Structured Clinical Encounter (TOSCE) was developed based on the Observed Structured Clinical Examination or OSCE. The OSCE, developed in the late 1970's at McMaster, has become the criterion standard for the assessment of clinical competence.

The TOSCE is a modification that brings together inter-professional teams of students to work through health care team encounters in a mock clinical setting.

Student-led initiatives: McMaster Interprofessional Student Collaborative (MISC) and Training Residents to Evaluate and Teach (TRaT)

Another important strategy in promoting the cultural shift towards inter-professional education is engagement of the student body. MISC, created as a grassroots initiative, purposefully seeks to create opportunities for students from diverse learning backgrounds to learn, work and socialize together. TRaT is an innovative teaching curriculum developed and implemented by medical residents where residents engage in learning with, from and about other healthcare professionals.

The PIPER team is an exemplar of collaboration as demonstrated through the design and implementation of innovative teaching and learning strategies, development of robust scholarly research activities, ongoing advocacy and championship, and a deep commitment and passion for IPE and IPC.

Section D—Project Description

Institutional Context

Within the health care system there has been increasing need for working and learning strategies that promote collaboration. The need for collaborative, inter-professional learning that promotes competencies in communication, teamwork, and conflict resolution and that improves the understanding of each other's roles has been affirmed in the educational and patient safety literature and reinforced by changes in the health care system (Canadian Health Research Foundation, 2006). McMaster University offers an ideal context to promote these competencies for future health care professionals. The Faculty of Health Sciences (FHS) at McMaster brings together over four thousand students from six health professional training programs. These include medicine, nursing, physiotherapy, occupational therapy, midwifery, bachelor of health sciences, physician assistant, child life studies, graduate studies and other allied programs including social work, kinesiology, and medical radiation. McMaster has a longstanding history of Inter-professional Education (IPE) and Inter-professional Collaboration (IPC). This commitment to inter-professionalism was formally affirmed by a working group report (December 2004) which made recommendations for the development of a new, mandatory IPE curriculum for all students within the FHS. The working group recommended that there be development of a new organizational structure and identity for IPE at McMaster to recognize the importance of inter-professional collaboration among faculty, students, and the broader clinical community. As a result, the Program for Inter-professional Practice, Education and Research (PIPER) was established in 2007. The working group transitioned into the Advisory Committee for PIPER. It was through the collaborative vision, planning and dedication of these faculty members across the educational programs within the Faculty of Health Sciences that enabled the successful formation of PIPER.

The complexities of implementing a mandatory IPE curriculum across diverse educational programs were significant. Curricula in the health sciences are typically intensive and require continual updating and negotiations with faculty *within* each program. Yet, implementing a mandatory inter-professional curriculum by its very nature requires collaboration *between* programs. Originally faculty from 5 programs (later 6 when the Physician Assistant Program was started) worked together to develop a curricular model, an evaluation strategy and a faculty development initiative.

At the same time, the focus on small group, self-directed and adult learning, which are fundamental components of the Faculty of Health Sciences, provided advantages that enabled flexibility in the model that could be operationalized. Additionally, the Faculty's commitment to educational innovation meant that there was an openness and willingness to experiment. Another significant advantage was the tradition of educational scholarship within the faculty.

The Advisory Committee was successful in receiving substantial external funding over a 5 year period to support IPE development and evaluation. Since that time, there has been an intense growth in the number and quality of the educational and scholarly activities, both faculty and student-led initiatives have been developed, implemented and evaluated under the PIPER

organizational structure. The aim of this paper is to highlight 4 major initiatives that illustrate both the scope of activities and the breadth and depth of collaboration required to achieve success.

Goals of the Project

The overall goal of PIPER is to serve as an organizational structure to foster a culture of IPE and collaboration across the Faculty and to develop inter-professional curricula. Specific goals include:

- Fostering IPE competencies: developing and evaluating IPE curricular initiatives to enable learners to obtain mandatory IPE competencies.
- Training for faculty: increasing the number of faculty who are prepared to develop and facilitate IPE and IPC, in partnership with the Program for Faculty Development and the Continuing Health Sciences Education Program.
- Research: developing an evidence base to support IPE and IPC initiatives in partnership with the Program for Educational Research and Development.
- Knowledge Transfer: serving as a center of information sharing and resources related to IPE and collaborative practice for faculty and students.
- Community Partnerships: developing IPE experiences in clinical practice settings.

The promotion of IPE competencies for learners is facilitated through clear and explicit learning outcomes. Each educational activity has specific learning objectives, but the core PIPER learning outcomes that are mandatory for each health science student are:

- Describe his/her professional role and responsibilities and the general scope of practice of other health professionals to colleagues and patients/clients.
- Demonstrate awareness and respect for the roles, responsibilities and competence of other professions, knowing when, where and how to involve others in patient care.
- Collaborate with other professions to establish common goals, provide care for individuals and caregivers, and facilitate shared decision-making, problem-solving and conflict resolution.
- Contribute to team effectiveness by sharing information, listening attentively, respecting others' opinions, demonstrating flexibility, using a common language, providing feedback to others, and responding to feedback from others.

As noted, there are many challenges in implementing a program of this nature. The sheer number of students (over 4,000) means that scheduling activities in which students from varying programs are free to participate can be a logistical feat. In addition, the heterogeneity of the programs (some are undergraduate, some are graduate programs) means that significant consideration is required of how to best "match" students at different levels. An early challenge was convincing faculty that collaborative skills and competencies were essential for health professional students and not an optional add-on that was somehow less valuable than profession-specific clinical skills. Finally, the need to develop faculty skills in designing and facilitating IPE was essential to the success of our initiative. PIPER was and continues to be engaged in promoting widespread cultural change among faculty and students.

Project Description

Although PIPER represents a larger organization structure comprised of student learning, faculty development, research, knowledge translation and community partnerships, for the purposes of this award, four key initiatives of the work of the PIPER team will be highlighted here. These initiatives showcase the development, implementation and evaluation of the IPE and IPC culture within the faculty:

- 1. Student learning opportunities: Communications skills lab**
- 2. Faculty Development: DVDs, IPE workshops**
- 3. Team Observed Structured Clinical Encounters (TOSCEs): Formative and summative learning tool:**
- 4. Student-led initiatives: McMaster Inter-professional Student Collaborative (MISC) and Training Residents to Evaluate and Teach (TREaT):**

Section E—Impact on Student Learning and Future Development

Student Learning Opportunities: Communications Skills Lab

Description

Recent reports outlining inter-professional competencies reinforce the centrality of communication skills. For example, one of the domains of the inter-professional competency framework developed by the Canadian Inter-professional Health Collaborative (CIHC) is inter-professional communication. Descriptors of the behaviors include: active listening, communicating to ensure common understanding of care decisions, setting shared goals and sharing responsibilities for care among others (CIHC, 2010). We were interested in developing a communication skills initiative that would require students to negotiate their own roles within a team environment and learn about team communication skills and strategies as they worked through an identified health care scenario.

The communication skills lab sessions are three hours in duration. The format consists of an introduction and orientation to the session, followed by an Inter-professional team meeting in which the students from the health science programs review a patient scenario and plan the initial interview of a standardized patient who has been specially trained to portray the scenario. An example of a communication skills scenario is as follows.

Communication Skills Scenario

This scenario involves two standardized patients—a mother and daughter dyad - so that students can practice assessment and communication with both individuals, as well as observation of the dynamics of the relationship and communication patterns between an elderly woman with impaired cognitive function, and her daughter. The students receive a request for an assessment from the case manager.

Scenario – The Case Manager’s Home Visit

Mrs. Cooke is a seventy-four year old woman who lives with her small dog in a one bedroom apartment. Recently widowed, her community case manager came to reassess her ability to function on her own. Prior to this visit, Mrs. Cooke was receiving one hour of personal care per week to assist with her bath. Upon the case manager’s arrival, the door to the apartment was wide open, Mrs. Cooke was wandering around without stockings, and her blouse was half-open. Bruises were visible on her legs. Her wallet sat open on the kitchen table, next to an empty medication dosette.

The initial interview with a standardized patient is 20 to 30 minutes in duration. When the interview is over, the patient leaves the room, and the student team meets to discuss their findings and their treatment and/or discharge plan. Once this task has been completed, the patient returns to the room and a follow-up meeting is conducted to discuss the inter-professional plan of care. A faculty facilitator observes all the interactions behind a one-way mirror. At the completion of the interaction with the patient, there is a 60-minute debriefing

and feedback session where the faculty facilitator provides individual and team feedback to the student group.

Impact on Student Learning

Students from medical (MD), nursing (N), physiotherapy (PT), occupational therapy (OT), midwifery (MW) and physician assistant (PA) programs, and pharmacy (Ph) residents participate in the communication skills sessions. See Appendix B: Student Participants in Communications Skills for evaluation data on student learning. The evaluation done to date has incorporated both qualitative and quantitative measures as follows:

1. Measure of Satisfaction

Students answered five questions related to their satisfaction with various components of the communication skills sessions. The self-designed questionnaire asked students to rate the components on a seven-point Likert scale ranging from very dissatisfied to very satisfied immediately following the communication skills event. One of the items asked the students to rank their overall satisfaction with the experience.

2. The Interdisciplinary Education Perception Scale (IEPS) (Luecht, Madsen, Taugher & Patterson, 1990).

The IEPS is an 18-item scale designed to measure student perception and attitudinal change following IPE events (Luecht et al, 1990). It is a 6-point Likert scale with 4 factors: competence and autonomy, perceived need for cooperation, perceptions of actual cooperation and understanding others' values. Internal consistency has been reported from $r = .51-.87$. The factors have a range in maximal possible scores from 72-96 and the maximum total score is 330. Students completed the IEPS immediately prior and following the communication skills sessions.

3. Inter-professional Focus Groups and Interviews

Students were also asked if they would participate in either an inter-professional focus group or an individual interview. The purpose of these sessions was to gather in-depth perceptions of the students' views on the strengths and challenges of the communication skills session and of the learning that occurred within the session. All focus groups and interviews were audiotaped and the transcripts were analyzed using qualitative content analysis (Hsieh and Shannon, 2005). This consisted of a line-by-line review of the transcripts to identify a key word or phrase that represented the participants' words. The coding scheme was developed by a research assistant, and verified by one of the study investigators. Codes similar in focus were grouped to form themes that emerged from the data.

We recruited 96 students for this program evaluation. The greatest numbers of students were from the MD program, followed by students from OT, PT, MW, PA, N, and Ph programs.

Overall satisfaction was high with only 1% (n=1) of the students indicating “dissatisfied,” and 4.2 % (n=4) indicating “neutral”. Students were satisfied with the clinical relevance of the experience, the contributions of the faculty facilitator, and the opportunities to collaborate with students from other programs. While 85.4% (n=82) were satisfied with the opportunity to learn about the roles of other professions, 12.5% (n=12) indicated they were neutral and 2.1% (n=2) were dissatisfied with this item.

Mean scores were calculated for both subscale and for the total score of the IEPS. Student t-tests were used to test significance between scores. While there was a statistically significant difference between the overall score following the communication skills session (p=.034) only one of the subscales, Perception of Actual Cooperation, reached a statistically significant level (p=.009).

Twenty students volunteered to participate in one of five focus group sessions. Qualitative analyses revealed that students perceived that they had learned about each other’s scope of practice and built confidence in their communication skills. The skill of the facilitator and preparation for the experience was perceived to promote the success.

Overall, our evaluation revealed that pre-licensure students enjoyed the opportunity to interact with colleagues from other professions in an intensive, yet realistic, educational event. Students built confidence through their interactions, and learned about others' scope of practice. Standardized patients provided an authentic alternative to onsite clinical education, yet allowed students to feel "safe" in their clinical interactions.

The student feedback suggested the facilitator role was important for making inter-professional learning explicit, and for balancing inter-professional and subject related learning. Our facilitators were social workers who had expertise and skills in communication and group process. They were required to observe the interactions, provide feedback and suggestions, promote group problem-solving and self-evaluation around communication issues, and role model respectful team interactions. Recognizing the importance of immediate feedback, we devoted a full hour of each three-hour session to debriefing with the facilitator. We view the reflection and insight gained from the experience as a critical element of student learning.

Future Developments

A learning experience which incorporates standardized patients and feedback from faculty facilitators can promote authentic inter-professional learning and develop students’ confidence to communicate in a team environment. Plans for this popular PIPER initiative include the development of new patient scenarios and incorporating medical residents into the process.

Faculty Development: DVDs, IPE workshops

Description

Faculty development is viewed as one of the key strategies in promoting an inter-professional culture within the educational programs. Working in collaboration with the Program for Faculty

Development, a series of IPE workshops have been developed. Funding received from a grant allowed for the development of high quality stimulus videos which form the basis for discussions in the workshops. The videos portray authentic clinical scenarios of both positive and challenging team interactions. These are designed to promote small group discussion and debate among faculty about the principles of IPE and IPC and how to facilitate collaboration and teamwork in learners. For example, one scenario focuses on an older woman who falls at home after being discharged from the hospital with the wrong prescription drug. Faculty discuss the issues related to communication, health systems and safety that led to the misfortune and how these could be prevented. The workshops, which have been run 4 times a year, have been popular and well attended. The videos have also been used for faculty development in other venues such as the Department of Family Medicine Retreat, Medical Education Rounds at St. Joseph's Hospital, and have proven to be a valuable teaching tool. See Appendix C for Feedback on Essentials of IPE: Expose Yourself workshop in 2010.

PIPER partnered with the Foundation for Medical Education to produce process-based small group (PBSG) learning modules on inter-professional education and collaboration. This special series of learning modules is dedicated to enhance the educational skills of busy clinician teachers. The module is available in two versions: as a tool to facilitate workshops and discussion during face to face teaching sessions, as well as an on-line tool. The PBSG modules are popular, advertised nationally and internationally and hold promise to promote skills in facilitating IPE in teachers from a variety of health professions.

Future Development

With the increased emphasis on collaboration and safety in the clinical setting, and the move to Family Health Teams, there is a growing demand for continuing professional development on IPC. The Program for Faculty Development (PFD), PIPER and Continuing Health Sciences Education (CHSE) work collaboratively to explore models to meet this need.

Team Observed Structured Clinical Encounter (TOSCE): Formative and Summative Learning Tool

Description

One of the challenges identified in the literature on IPE is the absence of appropriate evaluation tools. The PIPER Advisory Group recognized that there was a need for a unique evaluation tool that would be meaningful to learners and could effectively evaluate collaborative competencies. We developed the Team Observed Structured Clinical Encounter (TOSCE) based on the Observed Structured Clinical Examination or OSCE. The OSCE, developed in the late 1970's at McMaster, has become the criterion standard for the assessment of clinical competence. The OSCE uses a sampling strategy within which individual students encounter multiple patients, perform multiple tasks, and are observed and assessed by multiple evaluators. The TOSCE is a modification that brings together inter-professional teams of students to work through health care team encounters in a mock clinical setting. Orientation is provided for students and observers. Students are assigned to a team and then the teams rotate from station to station. The student teams typically work through a common clinical

presentation that requires them to work together to develop a care plan for a patient. Stations generally last 20 minutes and include the use of either a standardized patient(s) or a professionally developed video clip. Inter-professional evaluators sit in the room to assess team and inter-professional collaboration skills. We have primarily used the TOSCE as a formative learning experience and provide feedback to the group and individuals at the end of each station.

Impact on Student Learning

Formal feedback from students and observers who have participated in the original TOSCE stations, focused on palliative care from 2007 – 2010 is outlined in Appendix D.

There has been much interest in our TOSCE innovation both internally and externally (see list of publications, presentations in appendixes). Internally, a group of faculty members spearheaded the development of TOSCEs to promote safe maternity care. In October 2011, we piloted our maternity care TOSCE with 17 learners from midwifery (six 4th year undergraduate students), obstetrics (six, 2nd year post graduate students) and family medicine (five 2nd year post graduate students). Twelve faculty members were trained to be evaluators. Quantitative and qualitative evaluations indicated that the TOSCE was an excellent opportunity for learners to gain a better understanding of the scope of practice of other health professionals. Learners also stated that they enjoyed the opportunity to work through real life scenarios in a safe environment and welcomed the opportunity to develop collaboration and communication skills. The TOSCE stations have been modified based on the feedback from the pilot. A pilot of 4 additional stations is scheduled for February 2012. There is support from the academic programs to make the TOSCE a mandatory component of the training for those involved in maternity care.

Developing TOSCE stations that are suitable and relevant to students from different professions is a complex undertaking. Faculty who come from different professions and hold diverse perspectives need to work together to develop appropriate scenarios, ensuring that each scenario is relevant for each profession. There is a need for creating supporting materials for each station, for example, developing a script and training a standardized patient who would be interviewed in the station, developing a patient “chart”, developing a videotape of a patient which would augment written station materials. An orientation process was developed for both the learners and the faculty evaluators. In addition, an evaluation form that assessed learners’ inter-professional competencies needed to be designed. Using the Canadian Inter-professional Health Collaborative Framework (2010) an evaluation methodology was developed for 6 competencies: communication, collaboration, roles and responsibilities, patient/family centered approach, conflict management and team functioning.

Future Developments

We are committed to ongoing evaluation of the psychometric properties of our TOSCE. Future goals include developing TOSCE stations for senior students and post-graduate medical residents in other specialty areas such as pediatrics and geriatrics. A long-term vision is to have successful completion of a TOSCE evaluation as a mandatory component for all health professional students.

Student Initiatives: McMaster Inter-professional Student Collaborative (MISC) and Training Residents how to Evaluate and Teach (TReaT)

Description

Another important strategy in promoting the cultural shift towards inter-professional education is engagement of the student body. Student representation was included in the initial review that recommended the development of PIPER and continues with the PIPER Advisory Group.

McMaster programs engage students in medicine, nursing, physiotherapy, occupational therapy, midwifery, bachelor of health sciences, physician assistants, child life studies, graduate studies and other allied programs including social work, kinesiology, and medical radiation. McMaster students, with the support of faculty mentors, are free to develop student-driven extra-curricular activities that support or expand the work undertaken in their respective program curriculum. Two initiatives stand out as exemplars of inter-professional student engagement: McMaster Inter-professional Student Collaborative (MISC) and Teaching Residents to Evaluate and Teach (TReaT).

The goal of MISC is to mentor student leaders while fostering a culture of collaboration among health professional students at McMaster University. MISC, created as a grassroots initiative, purposefully seeks to create opportunities for students from diverse learning backgrounds to learn, work and socialize together. TReaT (Kazzam et al., 2010) is an innovative teaching curriculum developed and implemented by medical residents where residents engage in learning with, from and about other healthcare professionals.

MISC create and run numerous events that are designed to facilitate a paradigm shift in how students conceptualize collaboration in clinical practice. MISC initiated events are designated as “exposure” level events and involve students from every program within the faculty of health sciences and at all levels. Student representatives from every program and year serve as inter-professional student champions; numerous faculty mentors and PIPER members provide guidance to the group.

MISC students have been developing educational events for over 6 years. Students have formed several initiatives that target concepts that are underrepresented in professional curriculums including the Community Health Initiative, the Student Initiative on Gender and Health Transformation, and the Healthcare and the Humanities Initiative.

TReaT was developed after an environmental scan, consultation with content experts, and a literature review of similar teaching programs found that an Inter-professional Education (IPE) Module would be critical for developing resident-teachers. These residents are the first to include IPE as a dedicated module within a resident-as-teacher program. The objectives of the program are based upon the core tenets of Inter-professional Education and Collaborative Practice as supported by PIPER. By involving and teaching residents how to teach and be taught by an inter-professional team, the TReaT Program aims to prepare residents to excel in their educational responsibilities during residency and prepare them to become lifelong collaborative

teachers. PIPER was involved in the consultation and approval process as well as approving junior and senior faculty who are chosen for their credentials as experienced educators and content experts. The development team prepared a longitudinal curriculum stressing clinical integration with bursts of formal training over three years. A graduated design allows an introduction of core concepts early which are then reinforced throughout the curriculum. In the later years of the program, the curriculum increasingly involves practical exercises and teaching opportunities.

To teach the inter-professional educator role, students first learn the essential principles of IPE and teamwork. This large group session was facilitated by an inter-professional team. Immersive exercises using team-based simulations in a variety of contexts highlight the concepts of IPE. The second phase of the course involves providing formal training on how to give constructive verbal and written feedback within an inter-professional team to create a system of continual informal feedback and a dedicated formal relationship between medical learners and inter-professional colleagues. The course culminates with senior residents engaging in inter-professional teaching presentations where they address a healthcare concern requiring a team approach and facilitate their session for an inter-professional audience. Feedback and evaluation by an inter-professional team provides a multifaceted perspective on teaching abilities.

Examples of creative MISC events:

Global Health Disaster Simulation: Student teams work with standardized patients to problem-solve and reflect upon the social implications of a global health disaster.

Patient Voices Series: MISC regularly runs sessions where patients are invited to share their lived experiences with the health care system. Inter-professional groups of students discuss the experiences with patients directly. Past topics have included the family experience of illness with pediatric patients, living with HIV-Aids, and oncology care.

Living as a Gender Bender course: In this 6-week course, students work through an online module exploring the experiences of the transgender community with the health care system. In the final week of the course, students simulate a 1-hour team meeting in response to a case-scenario.

National Health Care Team Challenge: Since its inception, McMaster has sponsored an inter-professional team of students to compete in simulated team meetings about a case study in this annual event for Canadian universities.

Community Health Events: Inter-professional groups of students work collaboratively with the community to develop programming and have facilitated debriefing sessions to discuss the impact of their profession in a community setting.

Health care and the humanities: Students run reading groups to explore the social implications of health care as represented in literature. Students also explore depictions of illness in art.

Impact on Student Learning and Future Developments

MISC continues to expand its offering of events and work towards greater impact in the student body.

The future direction of the TREaT curriculum will be to assess whether it can change behavior and core teaching competencies and will be evaluated through multiple modalities to help identify the key elements necessary to improve residents as teachers. Qualitative assessments of trainee satisfaction and teaching confidence will be obtained by ongoing surveys as the inception cohort progresses through the curriculum. Pre- and post-module surveys as well as an Observed Structured Teaching Examination (OSTE) will be utilized to assess module effectiveness and impact. Emphasis will be placed on competency and real-world performance using standardized objective testing methodology, particularly through OSCE evaluation. Long-term retention of knowledge and attitudes towards teaching will be measured as trainees move through various stages of their development and early career.

Scholarship of PIPER Team Members

Over the years, the PIPER team has been engaged in a variety of scholarly activities related to this project. Knowledge dissemination is a critical part of our work; sharing our knowledge about teaching and learning with a wider audience to promote ongoing discourse and collaboration. The team members have presented and published in peer reviewed, national and international conferences and journals. See Appendix E: Selected scholarly presentations and publications from the PIPER team.

Bibliography

Policy papers and government initiatives have supported and promoted IPC and IPE initiatives. Calls for increased emphasis on curricula which support IPE have been widespread including the Romanow Report (2002), a CHSRF report (2006), and patient safety initiatives among others. Within the province of Ontario, a document entitled "Inter-professional Care: A Blueprint for Action in Ontario" was released by the Ministry of Health and Long Term Care in July 2007. The recently released Future of Medical Education in Canada Report from AFMC (January 2010) has identified the need to advance inter-professional education as one of its ten recommendations. Concurrent with the activities within McMaster has been an increase in evidence that supports IPE.

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Summary

The work of the PIPER program team, of which we have just highlighted a few examples, has made a significant impact on students, faculty, and the wider clinical community. The team is an exemplar of collaboration as demonstrated through the design and implementation of innovative teaching and learning strategies, development of robust scholarly research activities, ongoing advocacy and championship, and a deep commitment and passion for IPE and IPC. Our work is supported and endorsed by our partners and stakeholders. See Appendix F for letters of support from the Associate Vice-president, Academic and Associate Dean, Education of the Faculty of Health Sciences; health science students and alumni, and assistant deans and a community partner. The themes raised include: the importance of IPE and IPC to professional practice for our future learners; the role of IPE as an integral part of pre-licensure education; the critical role that PIPER plays in championing IPE for faculty, students and staff; and the importance of recognizing students as equals in acquiring new knowledge and skills. We are heartened to know that we have played, and will continue to play, a part in educating students who will make a difference in the health care of Canadians.

Section F—Additional Documentation

Appendix A: Team Member Collaboration

Appendix B: Student Participants in Communications Skills

Appendix C: Feedback on Essentials of IPE: Expose Yourself

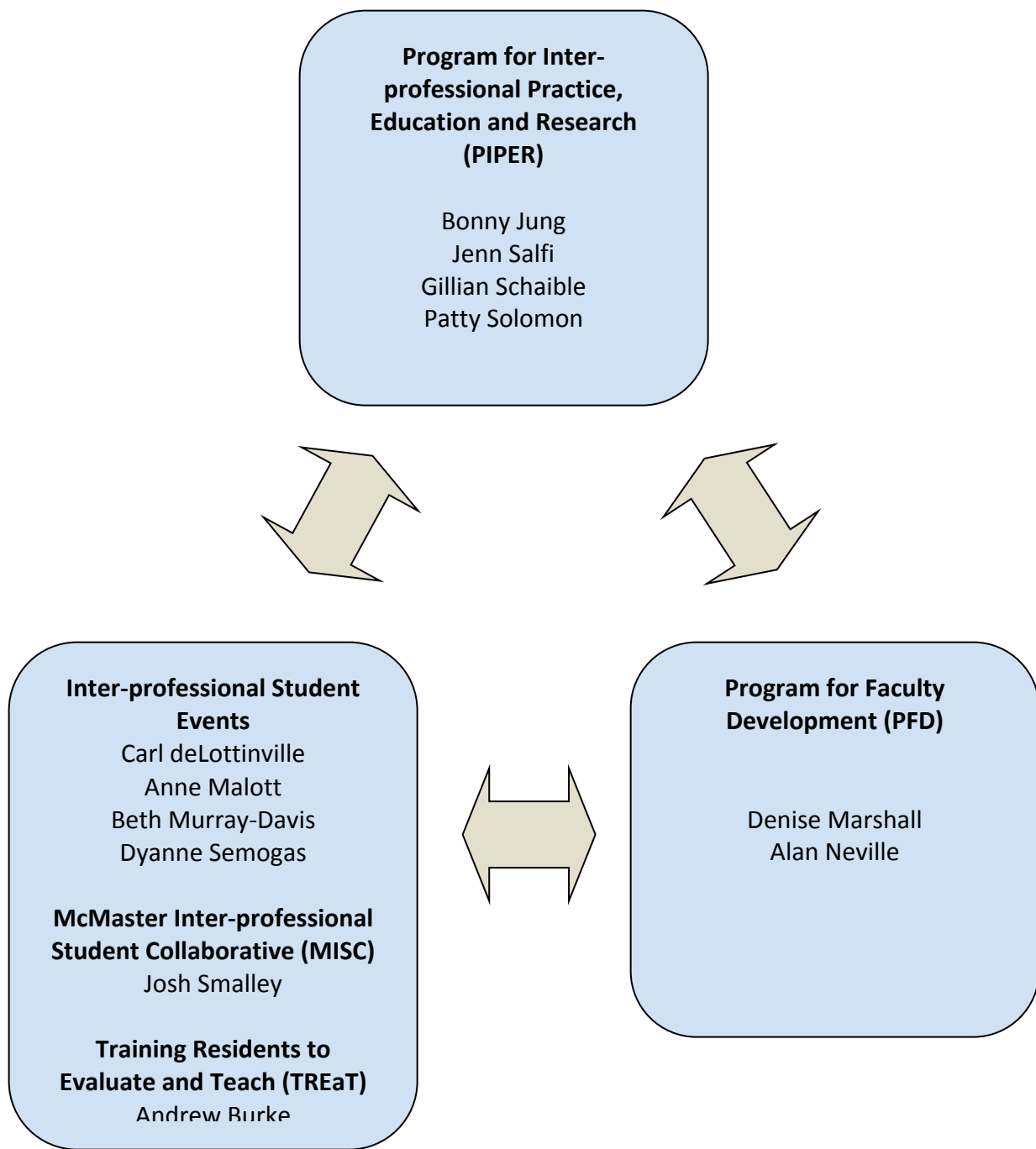
Appendix D: Summary of TOSCE feedback.

Appendix E: Selected scholarly presentations and publications from the PIPER team

Appendix F: Letters of Support

Appendix G: References

Appendix A: Team Member Collaboration



Appendix B: Student Participants in Communications Skills

Table 1. *Student Participants in the Communication Skills Sessions by Gender and Discipline**

Discipline	Gender		Total
	Females	Males	
Medicine	22	7	29
Midwifery	13	0	13
Nursing	10	0	10
Occupational Therapy	9	0	9
Pharmacy	3	1	4
Physician Assistant	6	1	7
Physiotherapist	20	3	23
Total	83	12	95

* missing data n=1

Table 2. *Student Participant's Satisfaction Scores Post Communication Skills Sessions (n=96)*

Indicate your level of satisfaction with the:	Satisfied		Neutral		Dissatisfied	
	N	%	N	%	N	%
1. Clinical relevance of module materials*	85	91.4	6	6.5	2	2.1
2. Contribution of the faculty facilitator to my learning	93	96.9	3	3.1	0	0
3. Opportunities to collaborate with students from other professions	89	92.7	6	6.3	1	1.0
4. Opportunities to learn about the roles of students from other health professions	82	85.4	12	12.5	2	2.1
5. Rate your overall satisfaction with the clinical component	91	94.8	4	4.2	1	1.0

* missing data n=3

Table 3. *Inter-professional Education Perception Scale Scores Pre and Post Communication Skills Sessions (n=92).*

IEPS Subscales	Mean total pre-event (s.d.)	Mean total post-event (s.d.)	T value	df	Sig.
Competency and Autonomy	79.39 (7.83)	79.96 (8.43)	-.814	91	.418
Perceived Need for Cooperation	65.93 (8.27)	66.46 (8.16)	-.623	91	.535
Perception of Actual Cooperation	74.02 (9.21)	75.88 (9.30)	-2.685	91	.009
Understanding of Other's Values	49.13 (8.22)	49.78 (9.57)	-.875	91	.384
Overall IEPS score	266.56 (23.31)	270.92 (25.46)	-2.157	91	.034