

# Faculty Development for Continuing Interprofessional Education and Collaborative Practice

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*This article proposes a framework for faculty development in continuing interprofessional education (CIPE) and collaborative practice. The framework is built on best practices in faculty development and CIPE. It was informed by local experience in the development, delivery, and evaluation of a faculty development program to promote capacity for dissemination of concepts relating to interprofessional education (IPE) and interprofessional collaboration (IPC) in health care environments. Interprofessional education has been demonstrated in clinical contexts to enhance interprofessional collaboration, patient care, and health outcomes. With curriculum design, teaching methods, and educational strategies in faculty development, it is possible to enhance the impact of IPE in clinical contexts. Faculty development activities themselves can model effective interprofessional education methods and practice. An IPE curriculum and teaching and education strategies are outlined. Strategic planning, including the application of a systems approach, attention to the principles of effective learning, and an outcomes-based curriculum design are recommended for the development of continuing IPE faculty development programs that enhance interprofessional collaboration.*

**Key Words:** continuing interprofessional education, faculty development, staff development, interprofessional collaboration

## Introduction

Defined as occasions when “two or more professions learn with, from, and about each other to improve collaboration and the quality of care,”<sup>1</sup> interprofessional education (IPE) may be the most direct approach to enhance the quality of interprofessional collaboration (IPC) in health care settings. IPC is defined as when the health disciplines come together around patient care issues, whereby decision-making happens within the group, and a transformation occurs.<sup>2</sup> During the past 10 years, IPE curricula have been developed for

health professions students in multiple settings.<sup>3</sup> Educating students in IPE in practice-based settings suggests that there be effective health care teams in place that role model best practices in team functioning and collaborative practice.<sup>4</sup> Concern has been expressed that there is a gap in the number of best-practice health care teams who role-model effective team learning. Similarly, health professional educators may not have the knowledge, skills, and attitudes to facilitate team training and learning.<sup>5</sup>

Interprofessional education has been associated with enhanced patient care and health outcomes in a range of clinical contexts.<sup>6</sup> These outcomes include improving the working culture in an emergency department and patient satisfaction, the reduction of errors in an emergency department, improved care delivered to victims of domestic violence, and improvement of the knowledge and skills of mental health professionals.<sup>6</sup> However, the majority of studies provide little discussion of methodological limitations associated with their research, and most studies pay little or no attention to sampling techniques in their work or issues relating to study attrition. This undermines the quality of evidence they can offer.<sup>6</sup> In addition, there are a small number of randomized controlled trials (RCTs) to indicate that IPE has little or no effect on professional practice or patient outcomes.<sup>6</sup> There is continued interest on many fronts to design better studies and to look at maximizing the educational impact of IPE on health care teams.

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Little attention has been paid in the literature defining continuing IPE curricula in practice-based settings and to establishing best practices in IPE for practicing clinicians.<sup>7</sup> Faculty development, the broad range of activities that institutions use to renew or assist faculty in their multiple roles, has the potential for improving the practice of IPC and for building capacity in the provision of IPE. The term *faculty development* in some jurisdictions (United Kingdom) may refer only to faculty development within university departments. However, for the purposes of the article a broader definition would include the development of all health professional staff who have teaching roles in health care settings and organizations.<sup>7</sup> There is little evidence-based literature available to guide faculty development in IPE, especially within health care institutions. There are few studies to suggest which types of IPE programs are most effective at improving team functioning, health outcomes of patients, or the performance of health organizations and systems.

This article brings a faculty development perspective to continuing IPE for health professionals, outlining a conceptual framework, a planning guide, suggestions for a curriculum, and teaching strategies and formats for planning and design. The work of Steinert forms the basis of the model, contextualized for health professionals in practice.<sup>8</sup>

### Conceptual Framework

There are significant conceptual similarities between effective faculty development and effective IPE.<sup>9,10</sup> Both focus on the need to effect change at the individual and organizational levels, are experientially based, and require expert facilitation and an education and organizational climate that values these interventions. The IPE literature describes aligning the micro- (learner, educator, and learning context), meso- (leadership and administrative), and macrofactors (accreditation and institutional structures).<sup>10</sup> The faculty development literature describes addressing the individual, instructional, and organizational development needs.<sup>9</sup> To assure success in both contexts, faculty developers planning IPE programs must be especially aware of the individual context, the environment, and the system in which education interventions are being planned.

### Setting the Stage for Faculty Development in Continuing IPE

Before implementing a faculty development program, an education plan adapted to an IPE environment needs to be considered.<sup>10</sup> Effective education design—needs assessment; clear, measurable learning objectives; outcomes-based curriculum design; interactive teaching methods; and an evaluation typology must be adapted for IPE.<sup>7</sup>

Arguably, the use of reflecting on the readiness of interprofessional teams to accept a faculty development program can help direct the planning of the program.<sup>11</sup> For example,

teams that have not perceived a need for change may resist an interprofessional program.<sup>7</sup>

Engaging physicians in IPE has been consistently noted as a challenge for planners.<sup>12</sup> Many reasons for this have been noted, including how physicians have been socialized in medical school and the perception by physicians that their authority in the hierarchy is being challenged by the new focus on collaboration. One approach to engage physicians is to identify team-based education programs that can be linked to demonstrable improvements in patient outcomes, such as quality improvement (QI) or patient safety projects.<sup>12,13</sup>

A well-planned and -executed needs assessment can both introduce prospective learners to some of the concepts of IPE (and thus is an intervention in itself) and at the same time identify enablers and potential challenges that can be addressed through curricular development.<sup>14</sup>

### Planning a Faculty Development Curriculum

As noted above, planning a curriculum requires attention to the different education needs at different levels of a health organization—micro/meso/macro. A faculty development program can be directed at the front-line health care team, health professional teachers and educators, administrators, managers, and policy makers.

As FIGURE 1 illustrates, at an individual and team level, faculty development can be directed at:

1. *The attitudes, knowledge, and skills that underpin effective collaborative practice.* This can include the beliefs of



FIGURE 1. Individual and team curricular opportunities for faculty development in IPE.

staff that would enhance or impede collaborative practice and an examination of the various roles of team members. Knowledge-based competencies can include knowledge about interprofessional learning, group dynamics, the competencies of effective teams, and the skills of practitioners to work and learn collaboratively.<sup>15,16</sup> Teams can benefit from articulating their common competencies, their complementary competencies that distinguish one profession from another, and their collaborative competencies that are necessary to work effectively with others.<sup>16</sup> Skills training should focus on effective team communication skills.<sup>17</sup> Attitude building, including respect for each other's roles and recognition that teams require work, are important components to successful teams.<sup>17</sup>

2. *Building capacity for health professional teams to self-assess their functioning periodically.* This process can be assisted with the use of a variety of new tools, including The Healthy Teams Model and the Team Survey.<sup>18,19</sup> The Healthy Teams model was developed with the use of rigorous qualitative methodology.<sup>18</sup> The Team Survey has 4 subscales. This instrument was found to be reliable (reliability coefficients between 0.70 and 0.93 were obtained for each subscale). Construct validity measures supported to a large degree the 4 subscales. The tool was tested with the use of a wide range of specialties, including surgical and medical teams, management, and service support.
3. *Updates on health professional care issues that are relevant to the team.* The goal of these sessions would be different from traditional forms of multiprofessional CE, where 2 or more health professionals might be learning together but not from and about each other. In continuing IPE, the goal of the sessions would include how a team works together to determine how new information or policies and procedures would be adopted by team members individually and by the team as a whole. Working together to master the practical "know-how" for sharing patient care is essential for effective team functioning.<sup>17</sup>
4. *Quality and systems improvement and patient safety.* Optimal interprofessional collaboration is a basic competency for health systems improvement. Team-based QI projects can be effective methods of enhancing team functioning and a particularly effective method of engaging physicians in continuing IPE.<sup>20-22</sup> Including this as a part of an interprofessional curriculum requires new conversations and collaboration between educators and QI and patient safety leaders in institutions and in the community.
5. *Leadership and organizational change.* Focusing on team-based learning can facilitate shifts in individuals' roles on teams and lead to increased interest in leadership and management skills, organizational change and development, and conflict management and negotiation.<sup>8,13</sup>
6. *Teaching and learning.* Addressing general topics on teaching and learning in a multiprofessional context can enhance the common bond that ties health professionals to their teaching assignments with health professional students and provide a much valued team-building exercise. Teaching topics can include curriculum design, interactive teaching, and giving and receiving feedback.<sup>8</sup> Addressing general topics in teaching can set the stage for faculty development that addresses specific topics on teaching in an interprofessional context.<sup>8</sup>

Engaging management, ie, nursing and professional practice leaders and hospital administrators, in the development and delivery process of faculty development sessions can be an effective method of creating an organizational culture of IPE. Faculty development interventions directed at management and administrative leadership can emphasize the linkages between IPE, quality and systems improvement, and patient safety. The administrative leadership also needs to provide the resources to support the education activities, including appropriate protected time for faculty and staff and clinical replacement costs, provide incentives to pursue faculty development, support mentoring and professional networks for staff and faculty, and address systems issues that would impede a faculty development program.<sup>23,24</sup>

At a government and health policy level, there is considerable evidence that IPE will not be sustained without the necessary policy changes accompanied by core funding to assist institutions to embed sustainable changes in ways that health professionals are educated.<sup>23</sup> IPE faculty developers need to collaborate with institutional leadership to lobby policy makers to make these systems-based changes.

### Settings, Formats, and Teaching Strategies

Unlike traditional continuing medical education (CME) that takes place in conference centers, university seminar rooms, and hotels, faculty development for continuing IPE should ideally take place *in situ*, in the clinical settings where teams work and practice and at times when teams would otherwise be meeting.<sup>8</sup> Leaving the clinical setting may be advantageous for team learning by limiting interruptions, but practically speaking, this is very difficult for most teams to arrange.<sup>25</sup>

Multiple teaching formats can be considered that vary in intensity and duration.<sup>8</sup> A recent systematic review of the faculty development literature revealed that effective programs are characterized by 4 key features: (1) experiential learning, (2) provision of feedback to participants, (3) well-designed interventions based on established principles of teaching and learning, and (4) diversity of educational methods.<sup>26</sup>

Choosing a teaching format depends on the goals of the faculty development intervention. A variety of team-based rounds' formats have been developed that focus on patient care, quality improvement, team functioning, and teaching improvement (TABLE 1).<sup>13,27</sup>

In addition to the well-established interactive learning approaches such as *case-based workshop*<sup>28-30</sup> and *team-building exercises*,<sup>31</sup> there are a range of many other approaches.

*Peer coaching and mentoring* in the workplace can promote continuing IPE and support for health professionals functioning on teams. It can stimulate critical reflection by orienting practitioners to see, act, and think in new ways through reflecting on the "languages of practice"—the sets of implicit and explicit rules that guide a clinician's practice.

TABLE 1. Teaching Formats and Strategies for IPE

Team-based rounds
Team-building exercises
Case-based workshops
Peer coaching and mentoring
Web-based learning
Preceptorship training
Longitudinal programs
Communities of practice
Teaching tools and resources

It is a particularly appropriate method to consider in an interprofessional context because of the range of different disciplinary languages of practice that exist on teams. Coaching to promote peer collaboration can enhance learning in the workplace because it offers opportunities for language change.<sup>32,33</sup> Mentoring relationships that are built around the completion of IPE projects in the workplace and that are based on principles of knowledge translation may be particularly effective.<sup>34,35</sup>

*Web-based learning* to prepare staff teachers to teach in an IPE context is being developed.<sup>36,37</sup> Faculty developers may be reluctant to use this as a primary teaching tool because of the nature of IPE teaching where face-to-face contact is so essential. Web-based learning may be best used as a supplement to other teaching formats.<sup>8</sup> There are also developmental issues that need to be considered. Faculty development programs that engage learners over an extended period of time where trust, collaboration, and a community of learners is well established may find the uptake of Web-based communication and collaboration to be very effective.<sup>8</sup>

*Preceptorship training* programs that focus on preparing interprofessional teams to provide interprofessional education to students from multiple disciplines are being developed.<sup>38</sup> These programs aim to assist staff in designing and implementing a clinically based IPE curriculum for the students training with them.

*Longitudinal programs* in faculty development are well established at many health professional schools.<sup>39–41</sup> Longitudinal programs in CE also have an established evidence base of effectiveness.<sup>42</sup> These types of programs are particularly suited for educating teachers and scholars in faculty development for IPE. Participants from different professions from different hospital and community settings have an opportunity to learn from each other, share resources, and potentially collaborate on interinstitutional faculty development projects. When a course is extended over time, participants have an opportunity to implement faculty development programs and return to the group to present their programs and receive feedback.<sup>9</sup>

*Communities of practice* (COP) in IPE are developing as a means of connecting a wider collaborative community of

IPE practitioners and scholars.<sup>43,44</sup> These groups are often highly motivated practitioners in the field who come together to generate new knowledge, have a specific interest and identity in the field, and share ideas, information, tools, and resources with each other.<sup>45</sup> A community of practice can be a successful outcome of longitudinal and train-the-trainer programs where participants have built trust and collaborative relationships over time.<sup>43</sup> Communities of practice can also structure team-based journal clubs and case conferences, leading to practice changes.<sup>46</sup>

*Teaching tools and resources* are needed to support faculty development programs. These tools can include PowerPoint presentations,<sup>47,48</sup> ice-breakers, games, role-plays, and IPE cases to stimulate reflection on effective team functioning; DVD trigger tapes to foster discussion on effective facilitation of IPE;<sup>49,50</sup> access to actors that can simulate health professional teams to practice team facilitation and provide feedback; and resources to support program development, implementation, and sustainability.<sup>51</sup>

Following the best practices and principles of program planning for faculty development for continuing IPE, TABLE 2 describes a program recently offered at the Centre for Faculty Development in Toronto.

## Discussion

One of the challenges in organizing faculty development programs for continuing IPE is in embedding the principles of IPE into every aspect of the program, from facilitator preparation, to curricular and program planning, to delivery and evaluation processes.

Effective facilitation in IPE requires significant training with opportunities for practice and feedback. Several themes emerged from a recent study<sup>25</sup> on essential features of successful facilitation in IPE. These themes illuminate the need for facilitators to demonstrate the ability to be self-aware, to respect and value differences, to be conscious of the impact of group dynamics on learning, to manage issues around power and hierarchy, to plan interprofessional learning, and to integrate the facilitator's learning philosophy.<sup>25</sup> The training of facilitators should include shadowing experienced IPE facilitators, cofacilitating and buddy teaching, opportunities to engage in formative evaluation of IPE activities, a mentoring opportunity from an experienced IPE facilitator or from a peer group of facilitators, and an opportunity to participate in interprofessional program planning.<sup>25</sup>

Using 2 facilitators (cofacilitation) is very common in IPE.<sup>25</sup> The cofacilitators' relationship with each other becomes a potential modeling opportunity for effective collaboration. This process can be debriefed with participants during the course of a workshop and is an opportunity to use a "parallel process" in facilitating to illustrate best practices in collaboration. This type of modeling has been noted as a critical factor for the success of an IPE workshop.<sup>54</sup>

Program planning and implementation for any IPE activity requires special attention to process.<sup>51</sup> For example, at

TABLE 2. University of Toronto IPE Faculty Development Course Planning and Design

**Setting:** Centre for Faculty Development, Faculty of Medicine, University of Toronto.

**Collaborators:** Office for Interprofessional Education, the Office for Continuing Education and Professional Development, University of Toronto, and the Toronto Academic Health Sciences Network Partnership.

**Program goal:** To train trainers in IPE faculty development.

**Participants:** Forty health care practitioners/clinical educators with existing knowledge/experience in IPE.

**Planning group:** IPE faculty developers, curriculum design expert, project manager.

**Needs assessment:** Sample of prospective participants. Curricular goals aligned with identified needs.

**Course format:** Longitudinal course was run over a 6-month period in 2008–2009.

**Curriculum design:** The course was designed with the use of a curriculum mapping approach.<sup>52</sup> The curriculum was aligned with an outcomes-based design.

**Teaching formats:** Large group, small group, online, teleconference call “coaching” sessions, interactive exercises, opportunity to apply learning to own context, joined a pre-existing community of practice in IPE/IPC postcourse.

**Resources:** Web-based discussion forum and social networking site used by participants between face-to-face sessions; resource manual aligned with each component of the curriculum.

**Assessment and evaluation:** “Realistic approach” used in order to focus on examining contextual factors associated with the development of the program.<sup>53</sup> Program outcomes and impact were measured with the use of an interprofessional outcomes typology.<sup>16</sup> At the end of the course, participants demonstrated their expertise by presenting a faculty development project they had completed at their local clinical setting.

the planning committee level, the same normative group dynamic issues will emerge that facilitators will face when they are facilitating IPE such as forming, storming, norming, and performing.<sup>55</sup> Effectively dealing with these stages as they emerge will ensure a successful planning process. One recommended method is to debrief every planning committee meeting.

## Conclusions

Faculty development can play an essential role in enhancing interprofessional collaboration and in building capacity for the provision of continuing IPE. Strategic planning includes a careful needs assessment, application of a systems approach (micro/meso/macro) to identifying the target audience of learners, incorporation of principles of effective learning, multimodal teaching methods, incorporation of an IPE-based curriculum and an outcomes-based curriculum design. Special attention needs to be paid to ensuring the teachers of these programs are well trained in IPE facilitation. It is important to embed the principles of IPE, with attention

## Lessons for Practice

- The term *faculty development* should be expanded to include the professional development activities related to faculty's role on a health care team.
- Faculty development can play an essential role in enhancing interprofessional collaboration and for providing continuing IPE.
- Facilitation skills training is required to deliver effective IPE.
- Faculty development for IPE needs to pay particular attention to process.

to “process” at every level of program planning and delivery. Comprehensive evaluation of faculty development programs in IPE is currently needed to provide more direction to program planning.

## References

1. Barr H. Interprofessional education today, yesterday and tomorrow. Occasional Paper 1. Health Sciences and Practice Subject Centre, Higher Education Academy; 2002. <http://www.health.heacademy.ac.uk>. Accessed December 22, 2008.
2. Harrison AL, English L. Interdisciplinary health assessment of the older individual: A conceptual framework for curricular integration. *J Phys Ther Educ*. 2001;15(2):17–22.
3. Reeves S. *Developing and Delivering Practice-Based Interprofessional*. Munich, Germany: VDM Publications; 2008.
4. Delva D, Jamieson M, Lemieux M. Team effectiveness in academic primary health care teams. *J Interprof Care*. 2008;22(6):598–611.
5. Hall P, Weaver L. Interdisciplinary education and teamwork: A long and winding road. *Med Educ*. 2001;35:867–875.
6. Reeves S, Zwarenstein M, Goldman J, Barr H, Freeth D, Hammick M, Koppel I. Interprofessional education: Effects on professional practice and health care outcomes. *Cochrane Database of Syst Rev*. 2008, Issue 1.
7. Freeth D, Hammick M, Reeves S, Koppel I, Barr H, Ashcroft J. *Effective Interprofessional Education: Development, Delivery & Evaluation*. Malden, MA: Blackwell; 2005.
8. Steinert Y. Learning together to teach together: Interprofessional education and faculty development. *J Interprof Care*. 2005;1(suppl):60–75.
9. Wilkerson W, Irby D. Strategies for improving teaching practices: A comprehensive approach to faculty development. *Acad Med*. 1998; 73:387–396.
10. Oandasan I, Reeves S. Key elements of interprofessional education. Part 2: Factors, processes and outcomes. *J Interprof Care*. 2005; 1(suppl):39–48.
11. Halaas G. How to cultivate an environment to advance interprofessional education. [http://www.atpm.org/prof\\_dev/institute08.html](http://www.atpm.org/prof_dev/institute08.html). Accessed December 26, 2008.
12. Whitehead C. The doctor dilemma in interprofessional education and care: How and why will physicians collaborate? *Med Educ*. 2007; 41:1010–1016.

13. Curley C, McEachern JE, Speroff T. A firm trial of interdisciplinary rounds on the inpatient medical wards: An intervention designed using continuous quality improvement. *Med Care*. 1998;36(suppl 8):S4–S12.
14. Reeves S, Russell A, Zwarenstein M, Kenaszchuk C, Conn LG, Doran D, Sinclair L, Lingard L, Oandasan I, Thorpe K, Austin Z, Beales J, Hindmarsh W, Whiteside C, Hodges B, Nasmith L, Silver I, Miller KL, Vogwill V, Strauss S. Structuring communication relationships for interprofessional teamwork (SCRIPT): A Canadian initiative aimed at improving patient-centred care. *J Interprof Care*. 2007;21(1):111–114.
15. Long S. Primary health care team workshop: Team members' perspectives. *J Adv Nurs*. 1996;23:935–941.
16. Barr H, Koppel I, Reeves S, Hammick M, Freeth D. *Effective Interprofessional Education: Argument, Assumptions and Evidence*. London, United Kingdom: Blackwell; 2005.
17. Sargeant J, Loney E, Murphy G. Effective interprofessional teams: "Contact is not enough" to build a team. *J Contin Educ Health Prof*. 2008;28(4):228–234.
18. Mickan S, Rodger S. Effective health care teams: A model of six characteristics developed from shared perceptions. *J Interprof Care*. 2005; 19(4):358–370.
19. Millward LJ, Jeffries N. The team survey: A tool for health care service development. *J Adv Nurs*. 2001;35(2):276–287.
20. Ladden MD, Bednash G, Stevens DP, Moore GT. Educating interprofessional learners for quality, safety and systems improvement. *J Interprof Care*. 2006;20:497–505.
21. Rubenstein LV, Parker LE, Meredith LS, Altschuler A, DePillis E, Hernandez J, Gordon NP. Understanding team-based quality improvement for depression in primary care. *Health Serv Res*. 2002;37(4): 1009–1029.
22. Johnson AW, Potthoff SJ, Carranza L, Swenson HM, Platt CR, Rathbun JR. CLARION: A novel interprofessional approach to health care education. *Acad Med*. 2006;81(3):252–256.
23. Ullian J, Stritter F. Types of faculty development programs. *Fam Med*. 1997;29:237–241.
24. Reeves S, Freeth D, Glen S, Leiba T, Berridge EJ, Herzberg J. Delivering practice-based interprofessional education to community mental health teams: Understanding some key lessons. *Nurs Educ Pract*. 2006;6(5):246–253.
25. Howkins E, Bray J, eds. *Preparing for Interprofessional Teaching: Theory and Practice*. Oxford, United Kingdom: Radcliffe; 2008.
26. Steinert Y, Mann K, Centeno A, Dolmans D, Spencer J, Gelula M, Prideaux D. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. *Med Teach*. 2006;28(6):497–526.
27. Lye PS, Simpson DE, Wendelberger KJ, Bragg DS. Clinical teaching rounds: A case-oriented faculty development program. *Arch Pediatr Adolesc Med*. 1998;152:293–295.
28. Delva D, Tomalty L, Macrae K, Payne P, Plain E, Rowe W. A new model for collaborative continuing professional development. *J Interprof Care*. 2008;22(suppl 1):91–100.
29. Hall P, Weaver L, Hupe D, Seely JF. Community-based palliative care education: Can it improve care of the terminally ill? *Acad Med*. 1999; 74(suppl 10):S105–S107.
30. Mann KV, Viscount PW, Cogdon A, Davidson K, Langille DB, Mac-cara ME. Multidisciplinary learning in continuing professional education: The Heart Health Nova Scotia experience. *J Contin Educ Health Prof*. 1996;16:50–60.
31. The Interprofessional Network of British Columbia. The UBC LEGO® Exercise. <http://www.in-bc.ca/resources/lego.php>. Accessed December 22, 2008.
32. Phelan AM, Barlow CA, Iversen S. Occasioning learning in the workplace: The case of interprofessional peer collaboration. *J Interprof Care*. 2006;20(4):415–424.
33. Office of Interprofessional Education, University of Toronto. The IMPLC: Super Toolkit. Available at: <http://www.ipe.utoronto.ca/initiatives/ipc/implc/supertoolkit.html>. Accessed December 22, 2008.
34. Thorndyke LE, Gusic ME, Milner RJ. Functional mentoring: A practical approach with multilevel outcomes. *J Contin Educ Health Prof*. 2008;18:157–164.
35. Straus SE, Graham ID, Taylor M, Lockyer J. Development of a mentorship strategy: A knowledge translation strategy. *J Contin Educ Health Prof*. 2008;28(3):117–122.
36. Centre for the Advancement of Interprofessional Education. IPE links. <http://www.caibe.org.uk/resources/ipe-links>. Accessed December 22, 2008.
37. Office of Interprofessional Education, University of Toronto. Resources: Overview. <http://www.ipe.utoronto.ca/resources>. Accessed December 22, 2008.
38. Office for Interprofessional Education, University of Toronto. The IMPLC: Super Toolkit; Preceptorship. <http://www.ipe.utoronto.ca/initiatives/ipc/implc/preceptorship.html>. Accessed December 22, 2008.
39. Knight AM, Cole KA, Kern DE, Barker LR, Kolodner K, Wright SM. Long-term follow-up of a longitudinal faculty development program in teaching skills. *J Gen Intern Med*. 2005;20(8):721–725.
40. Gruppen LD, Frohna AZ, Anderson RM, Lowe KD. Faculty development for educational leadership and scholarship. *Acad Med*. 2003; 78(2):137–141.
41. Steinert Y, Nasmith L, McLeod P, Conochie L. A teaching scholars program to develop leaders in medical education. *Acad Med*. 2003; 78:142–149.
42. Marinopoulos SS, Dorman T, Ratanawongsa N, Wilson LM, Ashar BH, Magaziner JL, Miller RG, Thomas PA, et al. *Effectiveness of Continuing Medical Education*. Evidence Report/Technology Assessment No. 149 (Prepared by the Johns Hopkins Evidence-based Practice Center, under Contract No. 290-02-0018.) AHRQ Publication No. 07-E006. Rockville, MD: Agency for Healthcare Research and Quality; 2007.
43. Suter E, Taylor L, Arthur N, Clinton M. Interprofessional education and practice. Creating an interprofessional learning environment through communities of practice: An alternative to traditional preceptorship. <http://www.interprofessionalalberta.ca>. Accessed December 23, 2008.
44. Office for Interprofessional Education, University of Toronto. IPC community of practice. <http://www.ipe.utoronto.ca/initiatives/ipc/cop.html>. Accessed December 23, 2008.
45. Wenger, E. *Communities of Practice: Learning, Meaning, and Identity*. Cambridge, United Kingdom: Cambridge University Press; 1998.
46. Price DW, Felix KG. Journal clubs and case conferences: From academic tradition to communities of practice. *J Contin Educ Health Prof*. 2008;28(3):123–130.
47. Office for Interprofessional Education, University of Toronto. Resources—presentations. <http://ipe.utoronto.ca/resources/presentation.html>. Accessed December 23, 2008.
48. Office for Interprofessional Education, University of Minnesota. <http://www.ipe.umn.edu/who/archived.shtml>. Accessed December 23, 2008.
49. Office for Interprofessional Education, University of Toronto. Resources—DVD tools. <http://ipe.utoronto.ca/resources/dvd.html>. Accessed December 23, 2008.
50. Moaveni A, Nasmith L, Oandasan I. Building best practice in faculty development for interprofessional collaboration in primary care. *J Interprof Care*. 2008;22(suppl 1):80–82.
51. Reeves S, Goldman J, Oandasan I. Key factors in planning and implementing interprofessional education in health care settings. *J Allied Health*. 2007;36(4):231–234.
52. Harden RM. AMEE Guide No. 21: Curriculum mapping: A tool for transparent and authentic teaching and learning. *Med Teach*. 2001; 23(2):123–137.
53. Pawson R, Tilley M. *Realistic Evaluation*. London, United Kingdom: Sage; 1997.
54. Smith S, Karban K. Tutor experiences of developing an interprofessional learning (IPL) program in higher education. *Response*. 2008; 4(1):1–13. [http://www2.derby.ac.uk/response/index2.php?option=com\\_content&do\\_pdf=1&id=24](http://www2.derby.ac.uk/response/index2.php?option=com_content&do_pdf=1&id=24). Accessed April 16, 2009.
55. Tuckman BW. Developmental sequence in small groups. *Psychol Bull*. 1965;63:384–399.