Abstract

Purpose
The paper draws on findings from a synthesis of materials from an environmental scan and literature review that aimed to identify the key elements related to the development of interprofessional education (IPE) in Canada. As well as reporting main findings from this work, the paper also offers some ideas for future directions of IPE in this context.

Methods
An extensive search was undertaken to identify materials (published and unpublished) which would inform an understanding of the elements linked to the development of IPE in Canada.

Results
Over 300 materials (papers, reports, reviews, books, chapters) were identified and synthesized. Four key areas emerged: ‘Learning approaches, activities and methods’; ‘Facilitation elements’; ‘Planning elements’ and ‘Empirical elements’. Collectively, these results aim to provide an insight into the key elements related to the development of IPE in Canada over the past ten years.

Principal Conclusion
While IPE in Canada is a relatively recent phenomenon, a number of significant developments have occurred in relation to learning, facilitation, planning and empirical activities.

Introduction
Globally, for over 30 years, health care policy makers have stressed the role of interprofessional education (IPE) in helping to improve communication and collaboration between different health and social care professionals (Barr et al., 2005; World Health Organization, 1976, 2010). However, over the past decade, IPE has increasingly become at the forefront of much educational, research and policy activity. Failures in communication and collaboration amongst professionals have been well documented, particularly in the patient safety literature, and continue to be a concern for all health and social care stakeholders (Joint Commission, 2004; Kvarnstrom, 2008; Williams et al., 2007; Reeves et al., 2010).

In Canada, a number of health policy documents have been produced outlining the central role of IPE for supporting a shift to more collaborative, team-based health care (e.g. Health Canada, 2000, 2005a, 2005b, 2006, 2007). Collectively, these policy reports emphasized the need to adopt IPE to ensure that professionals have the necessary knowledge and training to work effectively in interprofessional teams within the evolving health care system. Encouragingly, these policy documents have led to a number of government funded initiatives which have spanned the country over the past few years.
Initially, the federal government provided funding in the form of the IECPCP (Interprofessional Education for Collaborative Patient-Centred Practice) initiative which aimed to develop IPE activities across the country. Health Canada also funded the development of a national body in 2006, the CIHC (Canadian Interprofessional Health Collaborative-see: www.cihc.ca), to strengthen IPE and collaborative practice activities throughout Canada.

Building upon this ‘foundational’ funding from the federal government, a number of provincial governments also provided funding for a range of IPE activities. For example, in the province of Ontario, three major IPE initiatives were established which offered funds for a wide range of educational and practice based collaborative activities. The first initiative, supported by the Ministry of Health and Long Term Care and entitled, the ‘Interprofessional Mentorship, Preceptorship, Leadership and Coaching’ (IMPLC) project, aimed to develop and implement a number of IPE programs throughout 13 hospitals across the city of Toronto (Egan-Lee et al, 2008). The second initiative, called the ‘Interprofessional Education and Collaborative Practice’ (IECP) project, aimed to support a broader range of IPE and teamwork activities based across the province (Hollenberg et al., 2009). The third IPE initiative, funded by the Ministry of Training for Colleges and Universities, aimed specifically to create IPE undergraduate curricula across the province for a number of leading educational providers. This funding also led to the development of many IPE Centres within universities and hospitals who work to design and implement IPE curricula within their respective institutions. Further information on one of these centres, based at the University of Toronto can be found at: http://www.ipe.utoronto.ca/

To help understand the nature of these Canadian IPE activities, this paper draws on the results of a synthesis of materials from an environmental scan and literature review that aimed to identify the key elements related to the development of IPE in Canada. In this paper, main results from the synthesis are offered before ideas for future directions of IPE are discussed.

**Material and Methods**

A number of searches were undertaken to identify relevant materials for this synthesis. To locate published literature, searches were conducted on the electronic databases Medline and CINAHL. In order to locate unpublished materials, a search of the Internet using Google Scholar was undertaken. In addition, issues of the Journal of Interprofessional Care were searched. Finally, reports from Health Canada as well as the final reports from the IECPCP projects were obtained. Materials gathered from these searches were abstracted to elicit all information related to informing our understanding of IPE. This information was synthesized by undertaking a careful examination of the abstracted materials to identify key emergent factors related IPE. Further information about the methods employed for this synthesis can be found elsewhere (Reeves et al., 2009).

**Results**

Based on our searches of a wide range of published and unpublished (grey) literature over 300 materials (papers, reports, reviews, books, chapters) were identified. The results presented below aim to provide an insight into the key elements related to the development of IPE in Canada over the past ten years.

**Learning approaches, activities and methods**

The synthesis identified a number of key IPE approaches, activities and methods which have been employed across Canada. An increasingly
**Educational Approaches**

A common approach was the use of interprofessional simulated learning where students took part in classroom role plays, or were offered more high-fidelity experiences in simulated clinical environments. Another key approach employed across Canada was the use of clinical practice settings to provide students with ‘real life’ exposure into the processes linked to collaborating when delivering care. Increasingly, it was found that a number of Canadian universities were employing a blended IPE format in which they offered students both traditional (e.g. classroom) activities with electronic methods (e.g. online discussions).

Competency-based learning was found to be increasingly employed as the prevailing approach in the development of IPE courses across Canada. This approach allowed universities to develop curricula in which attitudes, knowledge, skill and behaviour could be combined together in a range of different ‘collaborative competences’. Similarly, there was a growing use of social learning approaches in IPE, in particular the ‘communities of practice’ perspective. In essence, this approach aimed to enhance the process of social learning that occurred and the shared practices that may emerge when individuals interact to learn and work together in an interprofessional community.

**Facilitation elements**

The synthesis indicated that a number of facilitation elements were important for the development of IPE across the country. First, it was found that a number of attributes were needed for IPE facilitators to be effective in their work. These included experience of collaborative practice, an ability to resolve conflict, flexibility and professional confidence. In addition, it was found that there was agreement that a range of faculty development opportunities should be provided to initially prepare facilitators, and also to ensure their on-going needs were met.

It was also noted that facilitators needed to create non-threatening learning environments to ensure that students are comfortable interacting with one another. However, due to a number of inequalities that existed between the health care professions, it was found that IPE facilitators must be prepared for possible interprofessional friction. In addition, it was noted that creative IPE activities can be employed to reduce possible friction, such as the use of introductory ice breaker activities that help lay some useful foundations in relation to establishing familiarity and trust between learners. Furthermore, it was indicated that due to the sometimes difficult work facilitating IPE, strategies are needed to avoid possible ‘burn-out’. Regular rotation of facilitators and peer support were recommended.

**Planning elements**

The synthesis indicated that the following planning and organizational elements have been found to be important for the development and implementation of IPE. First, given the complexity involved in creating and implementing IPE, planners needed to ensure that open communication occurred, as this can promote a sense of cohesion and collaboration. Effective clinical and educational leaders who champion IPE were also found to be crucial to the establishment, and on-going success of IPE programs. In general, when these IPE champions worked with IPE planners, it was reported that interprofessional activities and programs were more likely to be sustainable. It was stressed that
faculty should be rewarded for their support and engagement in IPE planning and teaching. Rewards such as promotions, salary increases or tenure were reported as helpful incentives, as well as important forms of acknowledgement and recognition. In the absence of such rewards, it was noted that while enthusiasm for IPE is helpful, it can only usually be maintained for a limited time. Therefore any IPE planning work ultimately needs to be underpinned by adequate and secure funding.

Another key factor in the successful development of IPE was found to be the need for universities to nurture strategic partnership relationships with local clinical partners. This can ensure that IPE can be offered in both classroom and clinical settings.

Empirical elements

In general, the quality of evidence for IPE which was identified during the searches for this work was variable: from high quality systematic reviews to poor single site descriptive studies. Based on the synthesis, the following empirical issues emerged in relation to the development of Canadian IPE. First, the literature generally offers a range of insights into the short-term effects of IPE. As a result, while there is now good evidence of these short term effects on attitudes and knowledge gain, less is known about the longer-term effects of IPE in relation to changes in behaviour and impact on patient care. Second, there is only a limited amount of qualitative accounts which describe, in-depth, the nature of the learning and teaching processes related to IPE. Third, encouragingly, there is an increasing amount of activity developing pre-validated scales for the measurement of IPE. The use of these scales can be helpful in providing a reliable understanding of the perceived effects of IPE on student attitudes and perceptions. Fourth, authors have traditionally employed only a limited amount of theory to underpin their empirical work, which has resulted in IPE being a largely an under-theorized activity. In addition, to date, there has been no effort to empirically examine the economic (cost and benefits) issues related to the development and delivery of IPE. Finally, despite its significance in the health care sociology literature, little attention has been paid to robustly studying the nature and impact of power, status, hierarchical and gender differences in the IPE literature.

Discussion

Based on the results presented above, a number of future directions can be offered in relation to the development of IPE in Canada.

Directions for learning

The synthesis identified a number of key IPE approaches which have been employed across settings, including simulation and blended activities. In using these approaches attention needs to be placed on designing and implementing IPE which considers:

- The use simulated learning activities as one strand of learning within clinical settings, can offer ‘realistic’ interprofessional collaboration experiences without disrupting service delivery or adding burden in busy clinical environments.
- Use of blended (traditional and e-based) learning methods to encourage both real-time interprofessional interactions within the practice setting, as well as asynchronous electronic interaction via the internet.
- While lists containing a wide array of interprofessional competencies continue to emerge, work is needed to understand how they can be effectively implemented in practice.
- The community of practice perspective provides a very useful set of foundations for the development and implementation of IPE.
Its stress on social learning (interaction) as a way to develop wider practice-based communities resonates well with this type of learning.

**Directions for facilitation**

The synthesis also identified a number of key elements related to facilitating IPE, such as the need for faculty development. When designing and delivering IPE programs the following elements need to be considered:

- Given the importance of the facilitator in IPE, and the wide range of attributes required by facilitators, faculty development activities aimed at initial preparation and regular ‘refreshers’ are essential.
- Due to heavy workloads, many IPE facilitators can face the problem of burn-out. As a result, rotation of facilitators should be undertaken. Opportunities for informal peer support can be another useful approach for minimizing this potential problem.
- Facilitators should be sensitive to and aware of the professional diversities which exist in an interprofessional learning group. Ice-breaking activities can be a useful way to begin exploring such issues in a non-threatening manner.
- Role modelling effective interprofessional collaboration can be an essential element of any IPE program.

**Directions for planning**

In addition, the synthesis identified a number of planning elements connected to IPE in Canada, including, shared planning work, incentives and rewards. When developing IPE, the following elements need attention:

- Given the complexity involved in creating and implementing IPE, planners need to be collaborative, creative, persistent as well as effective problem solvers. Support from senior management to free up time for development is required.
- Clinical and education leaders who can champion IPE are vital to its success. Often such individuals emerge as leaders from their enthusiasm without any preparation for their roles. Leadership training and support should therefore be considered.
- Senior management need to be mindful that providing incentives and rewards to faculty can be effective in securing their active involvement. Incentives such as remuneration and promotion should be considered.
- Planners should actively seek to develop strategic links with other clinical and educational funding institutions to help embed and ensure their longer-term viability.

**Directions for building the evidence**

Finally, in relation to strengthening the evidence-base for IPE, the following issues need to be considered:

- Overall, the quality of studies located for this work varied; there were some high quality studies, but many studies whose quality was poor. Therefore, there continues to be a need to undertake comprehensive high quality research studies to evaluate the processes, outcomes and impacts of interprofessional collaborative learning initiatives. The generation of rigorous empirical findings detailing learner, facilitator and patient outcomes will be helpful in securing its long-term sustainability.
- There is a need for further use of theory in IPE. Indeed, as Headrick & Khaleel (2008) have argued the development of high quality IPE demands an integration of theory.
- There is an increasing number of pre-validated IPE scales which help identify changes in learner attitudes and perceptions, but further work is needed to measure the impact of interprofessional learning on collaborative behaviours.
• At present, there is a lack of economic data (i.e. cost-benefit analyses) associated with IPE, and so we know little about its costs in relation to its effects. Work is needed in this area.
• Little attention has been paid to power, status and gender differences in the IPE literature. Further work is required in this area.

As indicated in this paper, IPE in Canada has been developed in a number of encouraging and positive ways in relation to learning, facilitation, planning and empirical activities. As a result IPE is becoming an important component across many educational institutions throughout the country. Ongoing organizational support and commitment remain key to ensure these developments can be sustained in the longer term. Continued investment in IPE must, of course, be based on robust empirical evidence. As this synthesis revealed, the evidence base for IPE is growing. While IPE research has shown that this type of education can have positive outcomes for students in relation improvement of attitudes, knowledge, skills, behaviours, more rigorous work is need to demonstrate evidence of its impact. Such evidence is important if IPE can ultimately be a sustainable feature across Canada.

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References


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