Placing Interprofessional Education and Collaboration impact in Historical Context

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Inter-professional Education and Collaboration (IP) literature

Inter-professional Education and Collaboration (IP) literature speaks more to theory, educational innovation, and policy than actual evidence-based research. We propose that inter-professional care needs to demonstrate efficacy as the new educational model for students of the 21st century. While there have been many papers, both research and position statements, on the benefits that IP and its patient-centred care may bring, few have tried to either quantify why IP should be used or even use qualitative methodology to uncover its power. In a recent literature search of over 200 papers over the last 10 years, including some of the earliest ideas about inter-professionalism dating back into the 70s, the ideals of teamwork, communication, roles and power have been debated but, strangely, not examined with a strict methodology.

Inter-professional Education and Collaboration (IP) literature

On the other hand, there have been some papers that have recently come out in the last two years that have utilized survey questionnaires and tried to extract certain factors which make for an ideal inter-professional team. Many, if not all, of these papers have flaws insofar as statistical problems, and bias insofar as questionnaire testing performed on specific sub-groups of health care professionals who had experience with IP. Furthermore, when tasked with looking at students from the various health care professions, there is a paucity of research. This presentation summarizes current thinking with respect to IP and introduces a pilot study that attempts to identify factors that are common to students and non-students across the health care disciplines.

Statement of Problem

Is interprofessional collaboration affected by age specific generational differences in the workforce?

Is interprofessional collaboration affected by age specific generational differences in the classroom?

Knowledge is limited in regards to perceptions of the work environment.

Strategies used for one generational cohort may not work for a different generational cohort.

Theoretical Framework

Generational cohort theory (Inglehart, 1977):

- Historical events and ideas transform the social functioning and value systems of one generational cohort into newly defined generational cohorts.

Two assumptions:

- "[T]he socialization hypothesis suggests that adults' values formed during childhood and adolescence and that these basic values stay relatively stable" (Hachtmann, 2008).
- The socio-economic conditions an individual grew up in determine these values (Hachtmann, 2008).

Theoretical Framework

The generational cohort theory provides the conceptual framework for this study, suggesting that different generational cohorts are influenced by the previous generation that provided fo them, thus, are continuously changing over time.

Background and Literature Review

Interprofessional collaboration:

- Having health professionals with a variety of different scopes of practice work collaboratively is central to the provision of optimal patient-centred health care.
- “Although it has been concluded that 80% of modern medical treatments have no scientific basis, the goal of any health care system continues to be optimization of the health of its members by effective and efficient means” (Mark, 2001).

Background and Literature Review

The term “collaborate” means to work together, especially in a joint intellectual effort (American Heritage Dictionary, 2006).

Latin: from com- “with” + labore “to work.”

True interdisciplinary practice is defined as “a partnership between a team of health professionals and a client in a participatory, collaborative and coordinated approach to shared decision making around health issues” (Orchard et al., 2005).

Background and Literature Review

In 2001, Mark, in his multicentre study, found that interprofessional collaboration is positively correlated with job satisfaction, patient satisfaction, and negatively correlated with job turnover. Collaboration also influenced the functional outcomes and satisfaction of patients (Mark, 2001).

Some other benefits of interprofessional collaboration may include improving health outcomes, increasing resuscitation rates, reducing medication variance, offering better treatments, follow-up, and improved communication between specialists (Mark, 2001).

Background and Literature Review

Interprofessional collaboration prevents "unnecessary or repeated investigation being performed" and patients who are discussed by multiple professionals from different disciplines are more likely to be included in clinical trials (Ruhstaller et al, 2006).

"Cooperation and collaboration is greater when each discipline understands the roles, responsibilities, and limitations of the other ones, allowing a trusting relationship to be developed between specialities." (Ruhstaller et al, 2006)

Background and Literature Review

Incorporating interprofessional collaboration into practice. “Modern healthcare teams not only include a group of professionals working closely together at one site, such as a ward team, but also extended teams with a variety of perspectives and skills, in multiple locations. It is therefore essential for [health care professionals] to be able to collaborate effectively with patients, families, and an interprofessional team of expert health professionals for the provision of optimal care, education and scholarship.” (Royal College of Physicians and Surgeons of Canada [RCPSC], 2005).

Background and Literature Review

In order to facilitate such a change there is a need to create a new culture in health systems that supports trust, a willingness to share in patient care decision-making, and meaningful inclusion of patients and/or family members in discussions about their care (Orchard et al., 2005).

The conceptual framework proposed by Orchard et al (2005) proposed three barriers to collaboration. These being:

- Organizational structure
- Power relationships
- Role socialization

Also proposed by Orchard et al to foster collaboration:

- Sensitization
- Exploration
- Intervention
- Evaluation

Background and Literature Review

There is little development of procedures:

“for interprofessional communication and collaboration during unstructured, unscheduled work periods” (Zwarenstein et al, 2007).

Research has identified four areas where:

“important characteristics of communication and collaboration behaviours are problematic in opportunistic encounters” (Ibid, 2007).

Background and Literature Review

1. Mutual interpersonal knowledge of given names and surnames is often absent. Staff members perceive that they do not know very many others' names and that their own names are usually unknown to others (Zwarenstein et al., 2007).

2. "Mutual interpersonal knowledge of another's occupational title, professional role, or educational credentials is absent or ambiguous.

3. "Interprofessional patient-related interactions are not commonly marked by sharing of unique, profession-specific knowledge bases, e.g. care plan activities or diagnostic questions" (Ibid, 2007)

4. "Role-blurring," has also been noted in the literature as destructive to successful collaboration. (Cole, 2007)

Interprofessional Education

Studies involving educational interventions in health professions to advance learner-based outcomes relevant to the provisions of interprofessional care have been identified. (Remington, 2006).

Remington, 2006, suggests that “all health care professionals be trained to function in interprofessional teams.”

Interprofessional collaboration teams are an “ideal learning opportunity for junior doctors or other professionals.” (Ruhstaller et al, 2006)

The new Northern Lights project, trying to integrate inpatient seamless collaboration, is ongoing currently, headed by Dr. Arnold Kim at the TBRHSC, LU Computer Engineering Department, myself and others. This would help answer some of the historical problems and critiques of IP if the project is successful.

Interprofessional Education

"Experts recommend that such training be integrated into health care curricula in a gradual and graduated fashion, and that educational models including multiple health care disciplines integrate didactic instruction with clinical learning" (Remington, 2006).

"Educators are challenged to integrate interprofessional education into current educational environments." (Remington, 2006).

"Barriers to interprofessional education include differences between disciplines in history and culture, academic schedules, professional identity, accountability and clinical responsibility, and expectation of professional education." (Remington, 2006)

Interprofessional Education

"Barriers to educational systems also exist, such as availability of interprofessional education and educational content, including understanding professional roles and group skills." (Remington, 2006) "Optimal curricula in interprofessional education would be designed to affect learner behaviour in clinical settings in ways demonstrated to improve patient outcomes or to improve the process of care ..." (Remington, 2006).

"The relative lack of information to guide educators in designing interventions to improve interprofessional education has been identified." (Remington, 2006) "Application of research results outside the cultural conditions and contextual determinants in which they were generated is not recommended because of effects of local socio-political forces, and called for more process-oriented research." (Remington, 2006)

There may be a generational challenge to IP.

A review from the nursing perspective identified similar challenges to interdisciplinary teamwork: the need to maintain professional authority, differing interpretations of team buzz-words and professional jargon, role stereotyping or uncertainty, and practical issues associated with teamwork, such as sharing personal space.

For practicing physicians on existing interdisciplinary teams, the same themes— particularly overlapping skills and knowledge on the part of non-physician team members— are cited as challenges to the physician's perceived

In spite of its recognized importance and the potential barriers to achieving it, interdisciplinary teamwork has traditionally not been a clear focus in the training and education of health professionals, nor have student attitudes toward it been adequately explored.

A multistate survey of 588 nursing students identified group dynamics as the training content most useful in preparing for interdisciplinary teamwork.

Main barriers to effective teamwork, according to these trainees, were the nurses' lack of confidence and assertiveness in team situations and perceived problems with the doctor/nurse professional relationship.

One educational program involving trainees in medicine, nursing, social work, and other disciplines resulted in team skill improvements and increased trainee appreciation for the idea of working on interdisciplinary teams at the program's conclusion but no significant changes in how participants viewed other disciplines.

A small geriatric interdisciplinary pilot program for medical and nursing students resulted in gains in medical students' perceptions of the role of nurses, but medical students were less convinced of the value of the training program than nursing students.

The survey is below.

- The Interdisciplinary Scale was created and found the following question clusters statistically significant to evaluate certain attitudes; namely:

- • Team Value
- • Team Efficiency
- • Physician's Shared Role on Team

Attitudes Toward Health Care Teams: Team Value, Subscale 1

2. The team approach improves the quality of care to patients.

3. Team meetings foster communication among team members from different disciplines.

5. Patients receiving team care are more likely than other patients to be treated as whole persons.

7. Working on a team keeps most health professionals enthusiastic and interested in their jobs.

Attitudes Toward Health Care Teams: Team Value, Subscale 1

9. Developing a patient care plan with other team members avoids errors in delivering care.

11. Health professionals working on teams are more responsive than others to the emotional and financial needs of patients.

14. The give and take among team members helps them make better patient care decisions.

17. Hospital patients who receive team care are better prepared for discharge than other patients.

Attitudes Toward Health Care Teams: Team Value, Subscale 1

19. The team approach makes the delivery of care more efficient.

20. The team approach permits health professionals to meet the needs of family caregivers as well as patients.

16. Having to report observations to the team helps team members better understand the work of other health care professionals.

Attitudes Toward Health Care Teams: Team Efficiency, Subscale 2

1. Working in teams unnecessarily complicates things most of the time.

8. Patients are less satisfied with their care when it is provided by a team.

10.When developing interdisciplinary patient care plans, much time is wasted translating jargon from other disciplines.

12. Developing an interdisciplinary patient care plan is excessively time consuming.

15. In most instances, the time required for team meetings could better be spent in other ways.

Attitudes Toward Health Care Teams: Physician's Shared Role on Team, Subscale 3

4. Physicians have the right to alter patient care plans developed by the team.

6. A team's primary purpose is to assist physicians in achieving treatment goals for patients.

13. The physician should not always have the final word in decisions made by health care teams.

18. Physicians are natural team leaders.

Conclusions

The problem with this study is that one cannot look at studying attitudes in an IP setting without internal bias. The participants in the study were all already part of an interdisciplinary team. Later in the article there is some reflection on what factors were found to be the most relevant (as per the above subscale table).

Despite that fact, this study on IP attitudes is like many of the few studies out there – inherently biased. Other authors after him have created surveys for other interdisciplinary teams, whether they be comparing nurses to doctors, or students in different health care fields, et cetera.

Conclusions

As examples:

- “Characteristics of doctors and nurses as perceived by students entering medical school – implications for shared teaching” (Rudland and Mires, 2005)
- “Difficulties in collaboration: A critical incident study of interprofessional healthcare teamwork” (Kvarnstrom, 2008)
- “Measuring the effect of interprofessional problem-based learning on the attitudes of undergraduate health care students” (Goelen, et al., 2006)

Conclusions

This has been the historical failure of interprofessional collaboration research: it has not been left open for examining whether new medical students, nursing students, or health care professionals -- be they doctors, nurses, occupational therapists, physiotherapists, etc -- who work daily in a busy hospital, or are studying at a medical school or nursing institution, are interested in interprofessional education or interprofessional collaboration. While curriculums are being changed and as the literature clearly shows for some suspected benefit that IPC works, there is no evidence except in certain circumstances such as the CCU or ICU.

Conclusions

Hence, the protocol that I have laid out here and the surveys that I have given to 97 of 216 medical students at the Northern Ontario School of Medicine completed the survey, which is a ~45% response rate. We also gave a separate survey to the faculty and practicing health care professionals at the Thunder Bay Regional Health Sciences Centre, as well as the Northern Ontario School of Medicine. We had a healthy response rate of 523 completed surveys. It is hard to estimate the net total we could have had from the staff, but this is a preliminary pilot study and so we were funded over the course of two summers by the Heart & Stroke Foundation of Ontario, and thus were quite pleased with the response rate.

Conclusions

When we started this study in 2008 we came to this conference to get questions for the surveys of students and health care professionals. In 2009, we returned with descriptive statistics. This year, we have returned with both a preliminary five-factor analysis model as well as inferential data on these surveys.

Conclusions

It should be noted that, when one reviews the literature, the interprofessional factors that we identified in our pilot study were common to students and non-students across the health care disciplines in terms of communications, observations, interactions, roles, and professional identity.

Whereas in ICU, CCU, and NICU, teams function collaboratively, as do code teams, it's when there are role confusions or blurring and expectation management that, historically, has brought the downfall of IPC. In order for us, proponents of this study, these need to be observed more fully.