

Attitudes of Undergraduate Social Work Students Toward Interprofessional Health Care Practice and Interprofessional Health Care Education

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Abstract

In 2005, the Centre for Collaborative Health Professional Education at Memorial University in Canada commenced an inquiry into the interprofessional education (IPE) of social work students. In the 2005/2006 academic year, undergraduate social work students were introduced to an IPE program at Memorial University for the first time. This interdisciplinary initiative brought together students from pharmacy, nursing, medicine, and social work to develop and encourage interprofessional educational activities with the purpose of increasing collaborative patient-centered practice competencies of students and professionals (Sharpe & Curran, 2006). In the subsequent three academic years (2005/2006, 2006/2007, 2007/2008) Bachelor of Social Work (BSW) students explored a variety of IPE modules. This paper summarizes the available literature on the topic of IPE and reports on data collected from three cohorts of undergraduate social work students regarding their attitudes toward interdisciplinary team practice. Data collected are in relation to the Health and Wellbeing of Children module, one of the five module topics in which these students participated over the three-year period. It is proposed that by understanding student attitudes as they are evidenced at this early stage of professional development, valuable information will be provided to educators to inform best practices in the teaching and learning of interprofessional practice skills within the discipline of social work. Finally, the authors provide suggested directions for future research.

Keywords: social work education, interprofessional education, Canada, student attitudes, social work students

This article represents the initial steps in the analysis of a large and complex data set that includes previously undocumented attitudes of social work students toward interprofessional education and practice. The topic is particularly important in the Canadian context, as IPE is one of several national accreditation standards for social work education. The article, the first in a series, singles out the foundational attitudes of three cohorts of social work students as they begin their IPE journey. This research endeavor contributes original foundational knowledge to both the literature on IPE and social work education in the interprofessional context. It also provides insight into IPE of health professionals and may act as a comparative point for future study of related professional education.

Literature Review

Many researchers believe that IPE should be thought of as an all-encompassing and integrated means of teaching and learning in professional programs, as opposed to being only one component of a program. The Interprofessional Education Curriculum Framework at Memorial University of Newfoundland (MUN) involves students in medicine, nursing, pharmacy, and social work, as well as other health and human service professional students, including human kinetics. The MUN approach exposes students to elements of IPE early in their training. This approach is consistent with recommendations of researchers such as Parsell and Bligh (1999) and Allison (2007) who concluded that IPE should commence as early as possible and should be well integrated in the educational plan (Curran & Sharpe, 2007).

A review of available literature regarding the teaching and learning of interprofessional practice skills among social work students reveals very little research unique to social work. Most studies report data relevant to various combinations of allied health disciplines.

Collaborative Approaches

Interprofessional teaching and learning is grounded in the reality that health care delivery benefits from interprofessional collaboration. Allison (2007) recognized that each profession has its own area of expertise; however, when functioning as individual disciplines, they can be less productive in ensuring that patients get optimum care than if skills are applied in a patient-centred and collaborative format. Allison noted that while interprofessional practice is viewed as the way of the future in health care, the connection between evidence-based best practices and current practices is missing. Despite the large body of evidence supporting interprofessional teamwork, it is not common practice in many health care settings. Allison indicated that a change in the approach to professional education is inevitable, necessary, and overdue and concluded by stating that “ideally, all professions would learn about each other, before they start to rely on one another for certain aspects of care” (p. 567). This type of learning was emphasized in the model of IPE developed and used in this study.

Previous to Allison’s work, Cooper, Carlisle, Gibbs, and Watkins (2001) noted several gaps in the research during a review of existing evidence on IPE for undergraduate health professionals with the purpose of determining the feasibility of introducing such curriculum within undergraduate programs. The evidence available was explored using a systematic review adapted specifically for that study. Their review indicated a lack of long-term evidence with regard to the effects of IPE upon professional practice, a lack of theory (educational or otherwise) upon which the development of IPE initiatives can be based, and the lack of summative assessment for students, which they felt “detracted from the significance of interprofessional education”(Cooper et al., p. 236) for the students. In their study, summative assessment was used as a means of ensuring participation in the IPE program. Cooper et al. concluded that any approach to IPE must “integrate the best external evidence with educational expertise and students’ choices” (p. 236).

Work by Payler, Meyer, and Humphris, (2007) provided a comprehensive commentary on the underpinning theories that have guided research on IPE and the pedagogic theories currently in place for IPE. The authors documented the myriad of skills, knowledge, and ways of working that each profession brings to the table. A particular focus was set on methods that are beneficial to professionals working with families and children. The research sought to monitor change in students' professional identity and attitudes toward other professional groups. A lack of common language and understanding was found to be an impediment to interprofessional education, learning, and practice (Payler et al., 2007), factors that were overcome in the present study design.

Interprofessional Teaching Methods

Many methods and approaches to teaching and learning have been identified for consideration. Faculty modelling, online discussion boards, and the involvement of service users, as well as face-to-face group sessions have been the most prominent methods reported.

Selle, Salamon, Boarman, and Sauer (2008) examined two methods of teaching related to interdisciplinary education. This study involved students in nursing, physical therapy, social work, and education who voluntarily participated. Participating students were divided into two teaching and learning groups. The first group were engaged in a discussion of research and were exposed to faculty modelling and role-playing; the faculty modelling element was omitted as a teaching and learning method for the second group. A significant difference was found between the groups. A key finding indicated that students who experienced modelling as a teaching method “appeared to be more confident and felt more prepared in their ability to participate in interprofessional groups” (Selle et al., p. 90). This evidence suggests modelling as an effective teaching tool for interdisciplinary education.

Miers et al. (2007) examined the outcomes of an interprofessional module that used an online discussion board for health and social care students in the U.K. This module allowed students to engage with technology as well as with group members through peer review. Constructivist learning theory was used to guide the development and conceptual structures of the module. In this module, students struggled to move beyond sharing knowledge and there was little evidence that students deepened their analytical or evaluative skills. However, this method did provide an excellent opportunity for students to provide the diversity of views from various backgrounds to stimulate critical analysis.

Clarke, Miers, Pollard, and Thomas (2007) examined the experience of students engaged in face-to-face group learning as part of a pre-qualifying undergraduate curriculum. Data were obtained from 15 groups of health and social care students from two campus sites of a single university in the U.K. The data obtained were effective in revealing the complexity of interprofessional student group interactions. “Age, gender, ethnicity, previous higher education, prior work experience and knowledge and experience of particular relevance to the ‘trigger’

scenario all influenced the individual and group interaction” (Clarke et al., p. 209). These results indicate the factors that influence group interaction, group roles, tasks and cohesion, and the tendency to avoid conflict, as they varied greatly from student to student and between groups as well. The importance of facilitating respect for diversity during interdisciplinary group work was highlighted by this study.

A study by Pollard, Miers, Gilchrist, and Sayers (2006) took a longitudinal quantitative approach in studying the effects of a pre-qualifying interprofessional curriculum for students from different professional programs in the health and social care fields. At the entry level, attitudes about IPE were unrealistically positive. Attitudes changed, however, after a heightened awareness of the issues around professional collaboration was obtained (Pollard et al., p. 551). These perceptions and attitudes changed throughout the course of the three-year study (up until time of qualification). The study concluded that despite the changing attitudes and perceptions throughout the three-year course, interprofessional curriculum can have a positive effect on students’ attitudes about their own professional relationships. The study did highlight one outcome that other studies have not explored: that IPE does not inhibit the development of profession-specific attitudes.

Ivanitskaya, Clark, Montgomery, and Primeau (2002) studied the processes and outcomes of interdisciplinary learning using relevant literature on the topic. They reported that the most promising approach to interdisciplinary learning allows for the skills, techniques, and methodologies of several disciplines to merge and work together on a central problem, issue, or theme. Students in these types of programs are more likely to acquire integrated perspectives and solution-focused strategies that are conducive to interprofessional practice.

Model for IPE

Figure 1 provides a graphic illustration of the framework used in the Memorial University project (Curran & Sharpe, 2007). In 2002, Freeth, Hammick, Koppel, Reeves, and Barr, drawing upon the work of Kirkpatrick (1967), outlined six components central to the effective evaluation of interdisciplinary education curricula. These are: reaction, modification of learner’s attitudes and perceptions, acquisition of knowledge and skills, behavioral change, change in organizational practice, and benefits to the client. Figure 1 represents a modification of the approach taken by Kirkpatrick and Freeth et al. and incorporates the elements proposed by Barr, Koppel, Reeves, Hammick, and Freeth (2005), “the assignment of time outside of regular class contact hours and affiliation with existing courses and scheduled in a common timeslot” (Curran & Sharpe, 2007, p. 4). The framework depicted reflects the existing knowledge reviewed, indicating the importance of a collaborative approach to IPE integrated as early as possible pre-licensure.

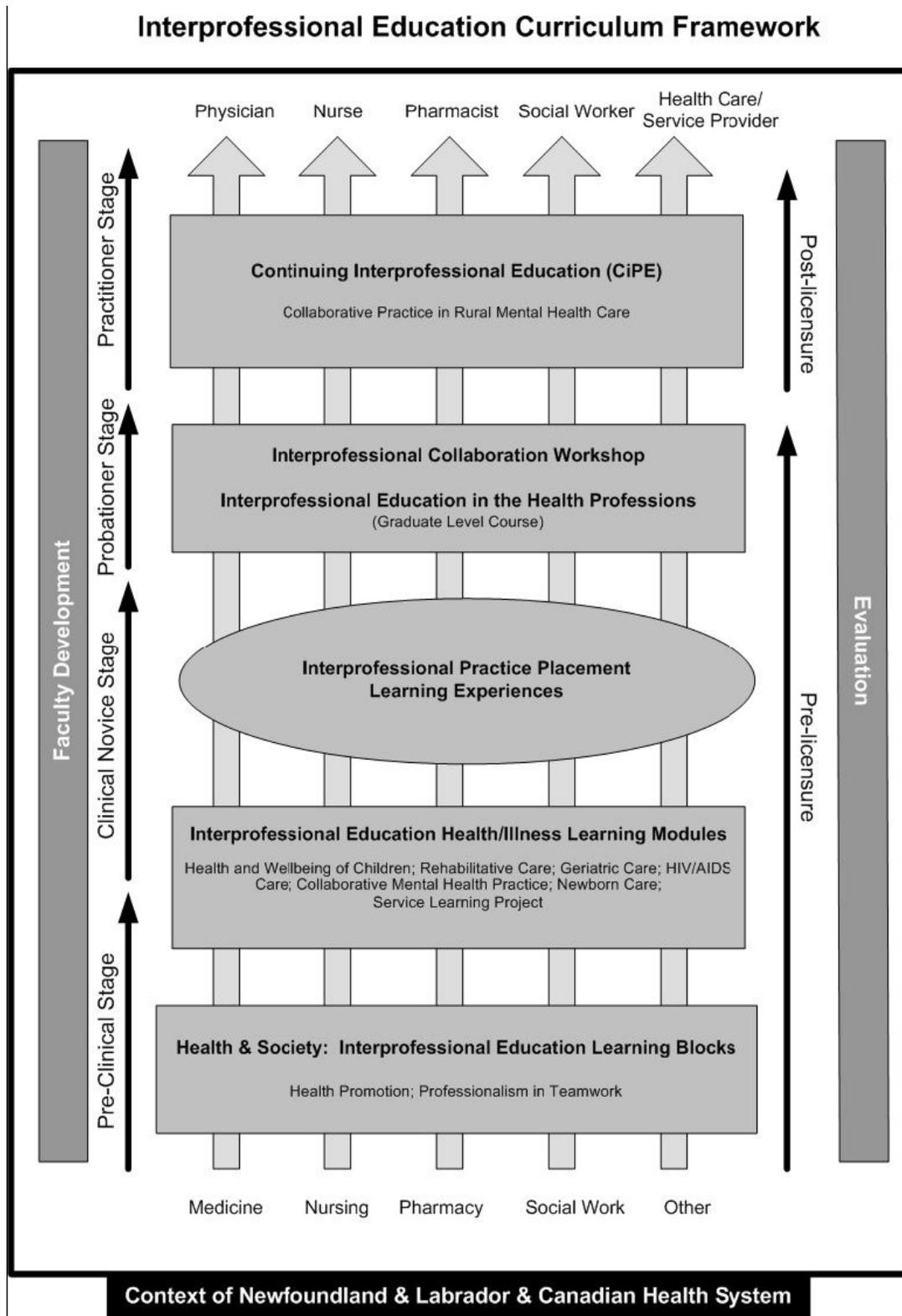


Figure 1. The interprofessional education curriculum framework.

Curriculum

The Health and Wellbeing of Children module was delivered over a three-week period in the winter semester (January to April) during each of three academic years. Students from the faculties of Social Work, Nursing, and Medicine participated. Social work students were awarded 10% of their affiliated course grade for satisfactory participation in the online discussions, attendance at a face-to-face discussion forum, attendance at a general case conference forum, and the completion of a brief (three-page) paper in which the students were asked to relate the learning experience to the theoretical content of the affiliated course.

A variety of methods were employed to facilitate the learning activities in each module's delivery. These methods included: provision of e-learning materials, such as links to academic content on interprofessional practice, team development, and team functioning, as well as the website for the umbrella Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP) research project. The e-discussion activities were encouraged among interprofessional students for the first two weeks of the module schedule; a progressive case study with associated discussion questions was posted for each of the successive developments of the case. Students were assigned to discussion group membership and were expected to make a minimum of two relevant postings at each of the first two stages of discussion. Online discussions were monitored and facilitated by faculty members. The third phase of the case study was posted online; however, discussion of this final installment took place in a face-to-face venue on the final day of the module. Each online discussion group met for a one-hour case analysis session and engaged in a critical thinking exercise regarding the best interprofessional practice interventions that could be identified for the case situation. Following the small group meetings, all discussion groups (approximately 250 students) assembled in an auditorium where they observed a simulated interprofessional case conference presented by professionals from the community. This panel consisted of representatives from the faculties of Social Work, Nursing, and Medicine, the provincial Office of the Child and Youth Advocate, and a practicing child welfare social worker. Following the panel discussion, the floor was open for dialogue and questions between the students and panel members. A cohort of approximately 50 nursing students from the western region of the province participated in the face-to-face discussion via video conference technology; hence, there was full participation during the large group plenary session.

Research Design

Study Population

During each of the academic years 2005/2006, 2006/2007, and 2007/2008, social work, nursing, medicine, and pharmacy students were invited to engage in the IPE project. A total of 750 students across these four disciplines participated in the first three years of this initiative. The data reported in this paper were collected from social work students at the pre-licensure stage enrolled in their first year of the

Bachelor of Social Work (BSW) program. Students are admitted to the BSW program following a minimum of two years of general undergraduate education. During the period between 2005 and 2008, all three cohorts of students participated in the Health and Wellbeing of Children module (n = 113). Additionally, each class participated in at least one of the following modules or blocks: Health Promotion through Community Assessment (n = 38), Collaborative Mental Health Practice (n = 36), Professionalism in Interprofessional Teamwork (n = 53), and the Service–Learning Project (n = 25).

One module was identified for analysis to reduce the confounding variability that would be introduced by pooling the data across all modules. The Health and Wellbeing of Children module was selected for a variety of reasons. These included the high relevance of the child welfare content to the current political and practice environment in which the students function. Entry-level positions for new graduates are frequently found in this area of practice. At the present time, following several commissions of enquiry and critical incident reviews, there is a renewed emphasis on the need to identify paradigms of intervention that will maximize effectiveness, efficiency, and quality of care for this vulnerable population. Further, the delivery of child welfare services in the province is presently in the process of being devolved to a separately functioning ministerial department. This will further enhance the possibility for creative and collaborative, interprofessional avenues for service delivery. Also, one of the authors was a member of the instructional development team and had implementation experience with this module for two of the three years reported in this paper. The format of delivery and content of the module was largely consistent over the three years covered by the analysis. The number of social work students involved was equally distributed across the three years of the research project. All social work students in their first year of the social work program (n = 45 per year) participated. The average age of these participants was approximately 24.5 years, with the three-year range from 20 to 59 years. Over the period of study (2005–2008), the percentage of social work students, from all cohorts, who indicated that they had participated in one or more interprofessional experience increased progressively from 44% to 50% to 74%.

Survey Instruments

This study specifically explores social work students' longitudinal satisfaction and attitudes toward interprofessional group dynamics and interdisciplinary health care teams with a focus on the three offerings of the Health and Wellbeing of Children module. To examine these variables, a satisfaction scale, the Group Dynamic Scale, and the Interdisciplinary Teamwork Scale were used, developed by the Centre for Collaborative Health Professional Education (Sharpe & Curran, 2006). Using longitudinal data collected from 10 different modules between 2005/2006, 2006/2007, and 2007/2008, each of these scales was assessed for internal consistency (instruments available from authors). The scales utilized as described below were administered immediately, on site, at the conclusion of the module.

Satisfaction scale. The student satisfaction section was comprised of ten 5-point Likert scale items (1 = *strongly disagree* to 5 = *strongly agree*). Students rated

Findings

Satisfaction with the IPE Experience

As indicated in Table 1, students reported general satisfaction with the mixed teaching methods. Although the differences in ratings were minimal, overall students indicated the strongest preferences for interactive face-to-face activities, such as case studies, small group learning activities, and panel discussions, although they were less enthusiastic about the e-learning and videoconferencing components.

Table 1

Social Work Student Satisfaction with the Learning Activities for the Health and Wellbeing of Children Modules (2005–2008)

Learning Activities	N	2005/2006		2006/2007		2007/2008			
		Mean	SD	N	Mean	SD	N	Mean	SD
E-learning material	35	3.94	0.591	37	3.84	0.800	38	3.84	0.789
E-learning discussion	36	4.00	0.676	38	3.82	0.955	38	3.92	0.712
Case studies	36	4.14	0.487	39	4.05	0.793	38	4.16	0.718
Small group learning experiences	36	4.06	0.630	39	4.10	0.821	37	4.14	0.787
Panel discussion	34	4.18	0.459	38	3.87	0.935	36	4.19	0.749
Videoconferencing	30	3.70	0.651	-	-	-	33	3.52	0.939

Over the three-year period, social work students reported high levels of satisfaction with their learning experiences in the Health and Wellbeing of Children module, with mean values above the median score of 3.5 for all three years (Figure 2). Respondents highlighted positive ratings regarding their understanding of the subject area, interprofessional teamwork, the role of social workers on interprofessional teams relative to the module, and the role and expertise of other health professions. There were no significant differences between social work students’ satisfaction with each delivery of the module; satisfaction scores reported a fairly consistent level of satisfaction from 2005/2006 to 2008/2009.

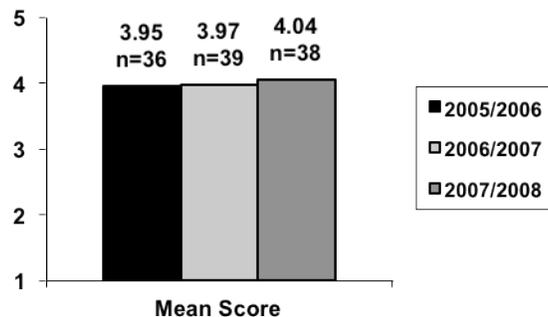


Figure 2. Social work students’ satisfaction scores with “Health and Wellbeing of Children” module delivery (2005/2006–2008/2009).

Interprofessional group dynamics. During the evaluation of the 2005/2006 and 2006/2007 deliveries of the Health and Wellbeing of Children module, social work students were asked to use the Group Dynamics Scale (adapted from Jacques, 2000) to rate their perceptions of effectiveness of the small group learning activity using a 7-point semantic-differential continuum. Seven items were considered in this scale—degree of mutual trust, degree of mutual support, communication group objectives, handling conflicts with group objectivities, handling conflicts within group, integration of resources, and suitability of group method (see Table 2). In general, students indicated positive group dynamics in both 2005/2006 and 2006/2007, with mean scores of 4.86 and 5.13, respectively. While students did report a higher mean for interprofessional group dynamics in 2006/2007, this increase was not significant.

Table 2
Social Work Students' Ratings of Aspects of Group Dynamics

Variables	2005/2006			2006/2007		
	N	Mean	SD	N	Mean	SD
Degree of mutual trust	36	5.69	0.82	38	5.56	0.89
Degree of mutual support	36	2.78	1.57	38	4.26	1.96
Communications	36	5.72	1.14	38	5.69	0.98
Group objectives	36	3.08	1.81	38	4.67	1.91
Handling conflicts within group	36	5.11	1.37	38	5.38	1.26
Utilization of member resources	36	5.36	1.46	37	5.31	1.79
Suitability of group method	36	5.33	1.20	38	5.10	1.74

In both 2005/2006 and 2006/2007, the variables highest ranked among social work students were communications (described as open and authentic) and a high degree of mutual trust. Students rated communications with a mean (standard deviation in parentheses) of 5.72 (1.137) in 2005/2006 and 5.69 (0.977) in 2006/2007. The degree of mutual trust was rated 5.69 (0.822) and 5.56 (0.893), respectively. For 2005/2006, 2006/2007, it is also notable to mention social work students' reported ratings of their small group's degree of mutual support, ranging from 1 = *everyone for themselves* to 7 = *genuine support for each other* (note: results reflect reverse coding). Students reported a mean of 2.78 (1.57) in 2005/2006 and 4.26 (1.956) in 2006/2007. This shift around the critical variable of trust was also reflected in social work students' ratings of commitment to group objectives (with 1 = *group was negative toward objectives* to 7 = *group was committed to objectives*; again, results reflect reverse coding) with the 2005/2006 and 2006/2007 mean scores of 3.08 (1.811) and 4.67 (1.91), respectively. Overall, other feedback found communication to be open and genuine, group members generally understanding of group objectives, positive attachment of objectives, and identification and working through the conflicts.

Social work students' attitudes toward interprofessional teamwork experiences. Social work students were asked to rate their opinions about interprofessional teamwork with reference to their feelings, beliefs, and experiences with the Health and Wellbeing of Children interprofessional module. In general, students reported positive attitudes toward interprofessional teamwork experiences for both 2005/2006 and 2006/2007, with mean scores of 4.43 and 5.84, respectively. A one-way ANOVA analysis indicates that the increase in mean scores was significant; $F(1, 72) = 170.79, p = .00$.

In 2005/2006 and 2006/2007, social work students identified their interprofessional teamwork competencies (Table 3). Overall, students reported positive feelings about interprofessional teamwork for both 2005/2006 and 2006/2007, with means of 4.03 and 5.45, respectively. Reported means were significantly higher with students participating in the 2006/2007 Health and Wellbeing of Children module, $F(1, 72) = 99.89, p = .00$.

Table 3
Social Work Students' Ratings of Participation on Interprofessional Teams

Variables	2005/2006			2006/2007		
	N	Mean	SD	N	Mean	SD
Degree of confidence of the role of my profession on the team	36	2.36	1.22	38	5.95	1.01
Ability to communicate with other professional learners	36	5.53	1.18	38	5.89	1.20
Understanding of roles on an IP team	36	5.33	1.41	38	5.76	1.10
Level of dependence on skills of other IPE learners	36	4.56	1.11	38	4.34	1.40
Identify with own profession or team	36	4.22	1.50	37	4.49	1.84
Overall Mean	36	4.03	1.45	38	5.45	0.81

Note. IP = interprofessional; IPE = interprofessional education.

Table 4 indicates social work students' ratings of their interprofessional teamwork experiences. It is interesting to note that students' responses were similar in both years—with the exception of two variables level of comfort with team members and perception of the task between the 2005/2006 and 2006/2007 cohorts. There was a significant increase in the means reported by social work students regarding their feelings about interprofessional teamwork. Students reported a mean score of 4.64 in 2005/2006, followed by a mean score of 6.20 in 2006/2007, $F(1, 72) = 143.59, p = .00$.

Table 5 captures social work students' beliefs about interprofessional teams in relationships to a 7-point semantic-differential scale. Social work students reported positive beliefs about interprofessional teams during both the 2005/2006 and 2006/2007 Health and Wellbeing of Children modules, with mean scores of 4.32 and 5.92, respectively. This difference between groups was significant, $F(1, 72) = 96.55, p = .00$.

Table 4
Social Work Students' Ratings of Aspects of Interprofessional Teamwork

Variables	2005/2006			2006/2007		
	N	Mean	SD	N	Mean	SD
Level of comfort with other IP team members	36	2.33	1.17	38	6.00	0.99
Importance of roles played by other professionals	36	6.03	1.44	38	6.39	0.64
Knowledge and skill of other professionals	36	6.25	1.20	38	6.54	0.61
Ability to cooperate with other IP team members	36	6.25	0.81	38	6.18	0.87
Perception of the task	36	2.33	1.20	38	5.89	1.09
Effective decision making	36	6.17	0.97	37	6.21	0.74
Overall Mean	36	4.64	1.99	38	6.20	0.24

Table 5
Social Work Students' Beliefs about Interprofessional Teams

Variables	2005/2006			2006/2007		
	N	Mean	SD	N	Mean	SD
Effectiveness of IP teams for developing solutions to problems	36	5.92	1.38	38	6.05	1.29
Level of conflict generated among IP team members	36	3.22	1.44	38	4.76	1.17
Level of effective communication required among IP team members	36	6.56	1.00	38	6.50	0.60
Overall Mean	36	4.32	2.33	38	5.92	0.80

Discussion of Findings

The differential positive response reported by students for the face-to-face aspects versus online portion of the module may be accounted for in several ways. The Social Work program is largely an in-class-based program. With few exceptions, students have been accustomed to developing their assessment and communication skills in this environment; and hence, a less positive response to online approaches could be anticipated. Although a trend, this finding was not statistically significant and could possibly change with prior online experience with distance courses prior to admission to the program and the growing cultural acceptance of online communication among students.

The analysis of overall student attitudes toward interprofessional teamwork was overall positive, with the 2006/2007 cohort showing significantly higher scores

on this dimension. It is likely that the cultural emphasis within social work education, including Standards of Accreditation, focused on interprofessional content and actively encouraged this positive outlook. Further, it is possible that the class characteristics of the 2006/2007 cohort contributed to the significant differences noted. Anecdotally, instructors involved with this class have found them to be particularly engaged in community-based initiatives and very ready to embrace challenges. Future research in this area will include a more focused attempt to identify the personality characteristics of various class cohorts and consider how these relate to IPE outcomes.

In the item-by-item analysis reported in Tables 4 and 5, it can be observed that in certain areas the 2005/2006 cohort reported lower mean scores for such variables as their degree of confidence in their role on the team, level of dependence on the skills of other learners, ability to co-operate, and perception of the task. The 2005/2006 academic year was the initial offering of this module. Both designers and facilitators were learning how best to represent and support the tasks required of the students. Open-ended feedback from social work students (in the second term of the first year of their program and thus very “new” to the discipline) reported that they were challenged by their student colleagues to be the “experts” on the issues of child welfare. For many, this content was as new as it was for their fellow participants, and thus lowered confidence levels could be expected. As previously stated, the characteristics of the 2006/2007 class may have made these issues less concerning, together with the fact that designers and facilitators were now more aware of the implications of the differential student experience levels within the interprofessional teams.

An additional complicating factor for social work students was a differential between the grade point assigned to this Health and Wellbeing of Children module in comparison to the other disciplines. In an effort to further integrate the interprofessional content into the “parent” course, social work students were assigned an additional brief critical analysis paper to complete at the end of the module. This apparently had the desired effect of increasing engagement; however, it also became an additional drive to assume a leadership role on the interdisciplinary discussion teams.

Limitations

The data set upon which this paper is based may have been influenced by two systemic factors. Firstly, the student cohorts engaged in this interprofessional learning project varied in their level of maturity as students. The social work students were working in collaboration with nursing students who were in the first year of their nursing program and were often less experienced in the post-secondary environment than the social work students who, although in the first year of their professional program, would have had a minimum of two years of university-level educational experience. This is contrasted with the medical students who, although also in the first year of their medical degree program, would largely have been graduates of a previous undergraduate degree program. It is not possible to quantify

the impact of this variable. However, anecdotal information suggests that these factors may have impacted the working dynamic within the teams. Further insight on this issue may be gained from future analysis of the open-ended comments provided by the students. Secondly, because of issues related to academic freedom and the grading preferences of various faculties it was not possible to impose a standard grade weighting or grading rubric across the disciplines involved. Nursing students were assigned 5% of their affiliated course grade for participation, and the medical students were assigned a pass–fail designation based on participation. However, due to the significance placed on interdisciplinary work within the social work curriculum, students were assigned 10% of their affiliated course grade for both participation in the various aspects of the module and the completion of a short analytic paper. Again, the anecdotal evidence available suggests that the social work students were inclined to assume a leadership role on their teams and were often relied upon for their expertise by the other students, given the child welfare nature of the case study incorporated in the Health and Wellbeing of Children module. From preliminary analysis of open-ended feedback, the 2005/2006 cohort found this added responsibility overwhelming whereas the 2006/2007 cohort appeared to regard it as an additional opportunity to demonstrate the unique place of social work in the interdisciplinary context.

Future Research

A detailed qualitative analysis of open-ended commentary is planned across the three cohorts to further explore “meanings” behind some of the data reported in the current paper. Additional directions for future research include: exploration of the current analytical framework in the context of the other learning modules, to explore the impact of substantive topic area on the outcomes observed; analysis of the change in social work student ratings over time, using data collected across the course of their professional education; comparison of results for social work students compared to those students from other disciplines (medicine, pharmacy, and nursing), both at the foundational level and over time. In conclusion, the overall attitude of first-year social work students to learning within this IPE opportunity has been positive and opens the door for further analysis of this very rich existing data set.

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