Attitudes of health sciences faculty members towards interprofessional teamwork and education

Vernon R Curran,[1,2] Dennis Sharpe[2,3] & Jennifer Forristall[2]

OBJECTIVES Faculty attitudes are believed to be a barrier to successful implementation of interprofessional education (IPE) initiatives within academic health sciences settings. The purpose of this study was to examine specific attributes of faculty members, which might relate to attitudes towards IPE and interprofessional teamwork.

METHODS A survey was distributed to all faculty members in the medicine, nursing, pharmacy and social work programmes at our institution. Respondents were asked to rate their attitudes towards interprofessional health care teams, IPE and interprofessional learning in an academic setting using scales adopted from the peer-reviewed literature. Information on the characteristics of the respondents was also collected, including data on gender, prior experience with IPE, age and years of practice experience.

RESULTS A total response rate of 63.0% was achieved. Medicine faculty members reported significantly lower mean scores ($P < 0.05$) than nursing faculty on attitudes towards IPE, interprofessional teams and interprofessional learning in the academic setting. Female faculty and faculty who reported prior experience in IPE reported significantly higher mean scores ($P < 0.05$). Neither age, years of practice experience nor experience as a health professional educator appeared to be related to overall attitudinal responses towards IPE or interprofessional teamwork.

CONCLUSIONS The findings have implications for both the advancement of IPE within academic institutions and strategies to promote faculty development initiatives. In terms of IPE evaluation, the findings also highlight the importance of measuring baseline attitudinal constructs as part of systematic evaluative activities when introducing new IPE initiatives within academic settings.

KEYWORDS humans; male; female; middle-aged; *attitude of health personnel; *interprofessional relations; faculty, medical; *patient care team; *education, medical; Newfoundland.

*Medical Education 2007: **41**: 892–896*
doi:10.1111/j.1365-2923.2007.02823.x

INTRODUCTION

Interprofessional approaches to patient care are believed to have the potential for improving professional relationships, increasing efficiency and co-ordination, and ultimately enhancing patient and health outcomes.[1] Interprofessional education (IPE), defined as occasions when 2 or more professions learn with, from and about each other to improve collaboration and the quality of care,[2] has been advocated as a key means for promoting and fostering interprofessional teamwork and collaboration.[1] Interprofessional education is believed to enhance learners' understanding of other professions' roles and responsibilities, while fostering mutual respect and understanding between members of the health care team.[1]

It has been suggested that the diverse attitudes and values that prevail amongst different health sciences

[1]Faculty of Medicine, Memorial University of Newfoundland, St John's, Newfoundland, Canada
[2]Centre for Collaborative Health Professional Education, Memorial University of Newfoundland, St John's, Newfoundland, Canada
[3]Faculty of Education, Memorial University of Newfoundland, St John's, Newfoundland, Canada

Correspondence: Vernon Curran PhD, Director of Academic Research and Development, Associate Professor of Medical Education, Centre for Collaborative Health Professional Education, Faculty of Medicine, Memorial University of Newfoundland, St John's, Newfoundland A1B 3V6, Canada. Tel: 00 1 709 777 7542; Fax: 00 1 709 777 6576; E-mail: vcurran@mun.ca

Overview

What is already known on this subject

The attitudes of faculty towards interprofessional education (IPE) and interprofessional teamwork are believed to be barriers to the successful implementation of IPE. There is limited research on faculty attitudes towards IPE and interprofessional teamwork, or the attributes that might influence those attitudes.

What this study adds

Profession, gender and prior experience with IPE appear to be key attributes that are related to positive attitudes towards IPE and interprofessional teamwork. Activities to advance and promote new or existing IPE initiatives within academic institutions may be enhanced when attention is given to such attributes. The assessment of attitudinal change amongst faculty members may also be an important consideration in systematic evaluations of IPE within academic institutional settings.

Suggestions for further research

Further research might investigate the underlying issues influencing attitudes towards interprofessional collaboration and IPE, and carry out longitudinal analyses of attitudinal change with implementation of IPE and complementary faculty development initiatives.

faculty members, including lack of respect and knowledge of each other, can be fundamental barriers to interprofessional teaching and learning.[2] Many faculty, if not most, have trained in different educational systems and learning contexts which have inculcated different values and attitudes. As a result, health sciences faculty may be either uncomfortable with this approach to teaching and learning, or not sufficiently knowledgeable to teach within it.[2] A commitment to interprofessional education and practice, positive role-modelling and a valuing of diversity and unique contributions are key competencies for interprofessional teaching.[1]

There has been limited research on attitudes of faculty towards IPE and interprofessional teamwork, or attributes which might influence those attitudes. Therefore, as part of a broader initiative to expand interprofessional education at our institution, a survey of the attitudes of health sciences faculty towards IPE, interprofessional teamwork and interprofessional learning in the academic setting was undertaken. A purpose of the survey was to examine the specific attributes of health sciences faculty that might relate to attitudes towards interprofessional education and teamwork.

METHODS

A survey was distributed to all faculty members in medicine, nursing, pharmacy and social work. The survey was comprised of a respondent characteristics section, a 14-item Likert scale adapted from Heinemann *et al.*[3] to measure attitudes toward interprofessional health care teams, a 15-item Likert scale adapted from Parsell and Bligh[4] to assess attitudes towards interprofessional education, and a 13-item Likert scale adapted from Gardner *et al.*[5] to assess attitudes towards interprofessional learning in the academic setting, which here refers to campus-based rather than practice-based learning. All the Likert scales used a 5-point rating, where 1 = strongly disagree and 5 = strongly agree.

RESULTS

Table 1 summarises individual item and overall mean ratings across academic units for the 3 scales. Overall, 194 respondents of a possible 308 completed the survey for a total response rate of 63.0%. Response rates by academic units were: medicine: 53.8% ($n = 106$); nursing: 80.0% ($n = 64$); pharmacy: 76.9% ($n = 10$), and social work: 76.9% ($n = 10$). Approximately 58% of respondents were female, 38% reported being between 50 and 59 years of age, and 53% reported having 21 years or more experience as a health professional. The majority of faculty (79.7%) indicated they had clinical and/or practice experience in interprofessional team settings. Cronbach's α revealed high internal consistency across all scales: Attitudes towards Interprofessional Health Care Teams (0.88); Attitudes towards Interprofessional Education (0.92), and Attitudes towards Interprofessional Learning in the Academic Setting (0.81).

Attitudes towards interprofessional health care teams

A 1-way, between-groups analysis of variance (ANOVA) and posthoc comparisons using the Scheffe test

Table 1 Summary of mean scores on attitudinal scales

Attitudes towards health care teams[3]	***Medicine***	***Nursing***	***Pharmacy***	***Social work***	***Overall***
Patients/clients receiving interprofessional care are more likely than others to be treated as whole persons	3.79	4.29	4.00	4.30	4.01
Developing an interprofessional patient/client care plan is excessively time-consuming*	2.71	2.51	2.70	2.67	2.64
The give and take among team members helps them make better patient/client care decisions	4.19	4.48	4.40	4.33	4.31
The interprofessional approach makes the delivery of care more efficient	3.83	4.29	4.30	3.70	4.01
Developing a patient/client care plan with other team members avoids errors in delivering care	3.85	3.95	3.80	3.50	3.87
Working in an interprofessional manner unnecessarily complicates things most of the time*	2.16	1.94	1.80	2.00	2.05
Working in an interprofessional environment keeps most health professionals enthusiastic and interested in their jobs	3.63	3.95	4.10	3.33	3.74
The interprofessional approach improves the quality of care to patients/clients	4.14	4.48	4.40	4.00	4.27
In most instances, the time required for interprofessional consultations could be better spent in other ways*	2.22	1.84	1.60	2.00	2.03
Health professionals working as teams are more responsive than others to the emotional and financial needs of patients/clients	3.61	3.98	3.60	4.00	3.76
The interprofessional approach permits health professionals to meet the needs of family caregivers as well as patients	3.97	4.31	4.00	4.30	4.10
Having to report observations to a team helps team members better understand the work of other health professionals	4.26	4.57	4.50	4.50	4.40
Hospital patients who receive interprofessional team care are better prepared for discharge than other patients	3.96	4.22	4.30	4.00	4.08
Team meetings foster communication among members from different professions or disciplines	4.26	4.60	4.50	4.50	4.41
Overall scale mean score†	3.88	4.20	4.13	4.01	4.02
Attitudes towards interprofessional education[4]					
Interprofessional learning will help students think positively about other health care professionals	4.07	4.40	4.44	4.30	4.22
Clinical problem solving can only be learned effectively when students are taught within their individual department/school*	2.25	2.17	2.00	2.00	2.19
Interprofessional learning before qualification will help health professional students to become better team-workers	3.95	4.37	4.22	4.30	4.13
Patients would ultimately benefit if health care students worked together to solve patient problems	3.93	4.43	4.44	4.50	4.16
Students in my professional group would benefit from working on small-group projects with other health care students	3.83	4.21	4.33	4.60	4.03
Communication skills should be learned with integrated classes of health care students	3.75	4.17	3.89	3.70	3.91
Interprofessional learning will help to clarify the nature of patient problems for students	3.76	4.08	4.22	4.20	3.93
It is not necessary for undergraduate health care students to learn together*	2.50	2.03	1.78	2.50	2.28
Learning with students in other health professional schools helps undergraduates to become more effective members of a health care team	3.91	4.38	4.22	4.40	4.13
Interprofessional learning among health care students will increase their ability to understand clinical problems	3.75	4.22	4.11	4.40	3.98
Interprofessional learning will help students to understand their own professional limitations	3.91	3.97	4.11	4.30	3.98
For small-group learning to work, students need to trust and respect each other	4.28	4.46	4.44	4.50	4.36
Interprofessional learning among health professional students will help them to communicate better with patients and other professionals	3.98	4.29	4.22	4.20	4.12
Team-working skills are essential for all health care students to learn	4.29	4.44	4.56	4.70	4.39
Learning between health care students before qualification would improve working relationships after qualification	3.88	4.30	4.44	4.40	4.09
Overall scale mean score†	3.90	4.23	4.26	4.27	4.06
Attitudes towards interprofessional learning in the academic setting[5]					
Interprofessional learning better utilises resources	3.48	4.05	3.56	3.60	3.69
It is important for academic health centre campuses to provide interprofessional learning opportunities	4.03	4.19	4.33	4.60	4.14
Interprofessional learning should be a goal of this campus	3.78	4.13	4.33	4.40	3.98
Students like courses taught by faculty from other academic departments	3.22	3.23	3.00	3.10	3.21

Table 1 Continued

Attitudes towards interprofessional learning in the academic setting[5]	*Medicine*	*Nursing*	*Pharmacy*	*Social work*	*Overall*
Students like courses that include students from other academic departments	3.09	3.44	3.44	3.50	3.27
Faculty should be encouraged to participate in interprofessional courses	3.87	4.13	4.11	4.20	3.99
Faculty like teaching to students in other academic departments	3.44	3.32	3.56	3.40	3.42
Faculty like teaching with faculty from other academic departments	3.52	3.40	3.67	3.30	3.48
Interprofessional efforts weaken course content*	2.33	1.98	2.00	1.90	2.16
Interprofessional efforts require support from campus administration	4.18	4.61	4.56	4.80	4.39
Interprofessional courses are logistically difficult*	3.52	3.21	4.11	3.90	3.47
Faculty should be rewarded for participation in interprofessional courses	3.67	3.85	3.44	4.00	3.75
Accreditation requirements limit interprofessional efforts*	2.92	2.60	2.89	2.70	2.80
Overall scale mean score†	3.50	3.74	3.62	3.72	3.61

* Negatively worded item
† Negatively worded items were reverse-scored to calculate the overall mean score

indicated that the overall mean score of medicine faculty (mean = 3.88, standard deviation [SD] 0.457) was significantly lower than that of nursing faculty (mean = 4.20, SD = 0.400). A 2-way, between-groups ANOVA indicated significantly higher mean scores for female faculty (F[1,178] = 19.810, $P = 0.000$) and faculty who reported prior experience with IPE (F[1,178] = 13.745, $P = 0.000$). Female medicine faculty (F[1,96] = 6.530, $P = 0.012$) and medicine faculty who reported prior experience in IPE (F[1,98] = 10.024, $P = 0.002$) also reported significantly higher mean scores than male medicine faculty and medicine faculty who reported no experience.

Attitudes towards interprofessional education

A 1-way, between-groups ANOVA and posthoc comparisons using the Scheffe test indicated that the overall mean score of medicine faculty (mean = 3.90, SD = 0.467) was significantly lower than that of nursing faculty (mean = 4.23, SD = 0.397). Significantly higher mean scores were also found for female faculty (F[1,176] = 14.610, $P = 0.000$) and faculty who reported prior experience with IPE (F[1,176] = 6.847, $P = 0.010$). Medicine faculty who reported prior experience with IPE also reported significantly higher mean scores than those who reported no experience (F[1,96] = 5.703, $P = 0.019$).

Attitudes towards interprofessional learning in the academic setting

A 1-way, between-groups ANOVA and posthoc comparisons using the Scheffe test indicated that the overall mean score of medicine faculty (mean = 3.50, SD = 0.393) was significantly lower than that of nursing faculty (mean = 3.74, SD = 0.410). A 2-way, between-groups ANOVA indicated a significant interaction between gender and prior experience in IPE (F [1,175] = 4.439, $P = 0.037$). Female faculty who reported prior experience in IPE had the highest mean score. Medicine faculty who reported prior experience in IPE also reported significantly higher mean scores than those who reported no experience (F [1,96] = 13.834, $P = 0.000$).

DISCUSSION

The findings from this survey suggest that gender and experience with IPE appear to be characteristics that were related to the attitudes of faculty members towards IPE, interprofessional teamwork and interprofessional learning in the academic setting. The interprofessional education experiences of faculty at our institution have included involvement with IPE curriculum development teams, multiprofessional and interprofessional teaching, and close interaction with both learners and faculty from other professions within educational (e.g. co-location), clinical and practice settings. Small-scale interprofessional education initiatives were initially introduced at our institution in 1999 and have included a series of small-group IPE modules.

As faculty attitudes are believed to be an important factor influencing the development of IPE initiatives within academic health sciences settings, faculty development efforts aimed at changing

attitudes and increasing understanding of interprofessional collaboration are critical.[2] The findings of this survey have implications for both the advancement of IPE within academic institutions and strategies to promote faculty development initiatives. In terms of IPE evaluation, the findings also highlight the importance of measuring baseline attitudinal constructs as part of systematic evaluative activities when introducing new IPE initiatives within academic settings.

Contributors: all authors made equal contributions to the study conception and design, the analysis and interpretation of data, and the drafting of the article. All authors approved the final manuscript.
Acknowledgements: faculty participating in the study.
Funding: this study was funded by the Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP) Secretariat of Health Canada through the Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP) initiative.
Conflicts of interest: none.
Ethical approval: this study was approved by the Human Investigations Committee of Memorial University of Newfoundland.

REFERENCES

1 Freeth D, Hammick M, Reeves S, Koppel I, Barr H. *Effective Interprofessional Education: Development, Delivery and Evaluation.* Oxford: Blackwell Publishing 2005.
2 Steinert Y. Learning together to teach together: interprofessional education and faculty development. *J Interprofessional Care* 2005;**1** (Suppl):60–75.
3 Heinemann GD, Schmitt MH, Farrell MP. Attitudes toward health care teams. In: Heinemann GD, Zeiss AM, eds. *Team Performance in Health Care: Assessment and Development.* New York: Kluwer Academic/Plenum Publishers 2002;155–9.
4 Parsell G, Bligh J. The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). *Med Educ* 1999;**33**:95–100.
5 Gardner SF, Chamberlin GD, Heestand DE, Stowe CD. Interdisciplinary didactic instruction at academic health centres in the United States: attitudes and barriers. *Adv Health Sci Educ* 2002;**7**:179–90.

Received 13 July 2006; editorial comments to authors 19 December 2006; accepted for publication 23 March 2007