

Interprofessional Education In Healthcare: Establishing A Successful Dialogue For Students And Faculty

Lynette R. Goldberg, PhD, Wichita State University, USA
Victoria Mosack, PhD, Wichita State University, USA
Jean Brickell, PhD, Wichita State University, USA

ABSTRACT

Effective healthcare today is built on interprofessional, population- and evidence-based approaches to provide care that is safe, timely, equitable, patient-centered, and efficient. As a result, there is increasing recognition by faculty, administrators, and community professionals of the importance of providing students with ongoing opportunities to problem-solve and learn together in interprofessional teams. In order to document baseline data on the interprofessional activities underway in a College of Health Professions, faculty and staff in each of the College's departments completed a published survey, Interprofessional Education Assessment and Planning Instrument for Academic Institutions. Faculty comments showed they viewed interprofessional education and collaborative clinical practice as important. However, survey data showed interprofessional education generally was limited to discipline-specific activities. Data were important in encouraging faculty to begin a productive dialogue as to how interprofessional education opportunities could be implemented more effectively for students.

Keywords: Interprofessional Education; Healthcare Education; Collaborative Practice

INTRODUCTION

Effective healthcare today is built on interprofessional, population- and evidence-based approaches to provide care that is safe, timely, equitable, patient-centered, and efficient (Institute of Medicine [IOM], 2000, 2001). As a result, there is increasing recognition by faculty, administrators, and community professionals of the importance of providing students with ongoing opportunities to problem-solve and learn together in interprofessional teams both in the classroom and in the community (Arndt et al., 2009; Buelow, Downs, Jorgenson, Karges, & Nelson, 2008; Goldberg, Clement, & Cotter, 2011; Goldberg et al., 2010; Harris, Henry, Bland, Starnaman, & Voytek, 2003; Heuer, Geisler, Kamienski, Langevin, & Maillet, 2010). There are multiple benefits to interprofessional learning (Reeves et al., 2009; Remington, Foulk, & Williams, 2006; Rose et al., 2009; Simmons & Wagner, 2009). These benefits include (a) increased respect for, and ability to work with, the variety of professionals and staff involved in providing effective healthcare - both those in the front lines and those behind the scenes, and (b) increased knowledge through using a broader perspective to search evidence-based literature, develop hypotheses, and determine intervention strategies. Appreciation of the importance of interprofessional teamwork also may facilitate students' advocacy for public and economic policies that support and maintain integrated, efficient, and effective service delivery.

There are many ways in which to facilitate students working together in interprofessional healthcare teams. For example, beginning early in their academic careers through enrollment in core interprofessional undergraduate courses; teamwork in co-taught graduate courses; problem-solving in small groups in on-line competency-based modular learning; participation in national initiatives such as the CLARION program, and ongoing complementary clinical experiences (Goldberg et al., 2010; Johnson et al., 2006; Remington et al., 2006; Simmons & Wagner, 2009). Student success in such interprofessional collaborations requires faculty to agree on what they mean by

“interprofessional” work and be aware of the preferred learning strategies of students from different healthcare professions (Rose et al., 2009; Zoghi et al., 2010).

As developed by the United Kingdom-based Center for Advancement of Interprofessional Education (CAIPE, <http://www.caipe.org.uk/>, accessed October 7, 2011) and promulgated by the World Health Organization (WHO, 2010), interprofessional education occurs *when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes*. Organizational and philanthropic endorsement of interprofessional collaboration in healthcare education is evident and increasing (Goldberg, Koontz, & Rogers, in press; Montagnini et al., 2011). An Interprofessional Education Collaborative (IPEC) expert panel recently published two comprehensive reports on the core collaborative and team-based competencies needed for effective learning and practice in healthcare (2011a, 2011b). Advocating for the broad implementation of these collaborative competencies, the IPEC panel’s reports include examples of interprofessional education and universities at which interprofessional education has been successfully introduced. The panel encouraged educators to participate in the development of a national clearinghouse to share information on successful interprofessional education strategies and outcomes.

To measure accurately the impact of interprofessional education, it is important to obtain baseline data on the degree to which organizations involved in healthcare education are involved in interprofessional learning. The purpose of this paper is to share the results of obtaining such baseline data from units in a College of Health Professions. Over the past five years, many faculty in the College have been actively engaged in pursuing interprofessional initiatives. However, these efforts were not widely known within or outside of the College. Gathering data to document these initiatives was considered important for the continued implementation of interprofessional opportunities to promote student success. The study was approved by the Institutional Review Board of the sponsoring university.

METHODS

College of Health Professions. This College is one of six colleges/schools in a mid-size (15,000 students), urban-research intensive university in the Midwest United States. The College has six departments: Communication Sciences and Disorders, Dentistry and Dental Hygiene, Medical Technology, Physical Therapy, Physician Assistant (including Pharmacology), Public Health Sciences (including Aging Studies), and one School of Nursing. These departments and the School of Nursing offer five undergraduate programs, three graduate programs, three professional doctorates, and one PhD program. There are approximately 100 full-time and adjunct faculty, clinical educators and staff in these programs.

Survey. A published survey, *Interprofessional Education Assessment and Planning Instrument for Academic Institutions* was used (Association for Prevention Teaching and Research, 2009). The survey’s definition of interprofessional education is closely allied to the definition promoted by the WHO. The 10 survey items are categorized into five domains: (1) educational venues, (2) educational evaluation, (3) programmatic participation, (4) institutional support, and (5) faculty incentive. Each item is scored using a 5-point (0-4) Likert-type scale (with an additional un-scored option of “unable to assess”). The intent of the survey was to identify the level of interprofessional education (IPE) in the five domains for each individual department/school in the College. The survey was not designed to evaluate individual courses, or specifics such as students’ competence in thinking skills in a collaborative setting, knowledge of subjects outside their professional discipline, or strategies used in preparing students to learn within collaborative groups. An example of a survey item and the scoring system are presented in Table 1.

Table 1. Inter-professional education (IPE) assessment and planning instrument: Item 1.

Item	Level 0	Level 1	Level 2	Level 3	Level 4
IPE Courses	No courses with Inter-professional Collaborative Concepts (ICCs)	ICCs within a single discipline’s course for learners within that discipline	ICCs within a single discipline’s course for learners from multiple disciplines	ICCs within a shared course for learners from multiple disciplines	ICCs within a course for learners from multiple disciplines which may or may not be taught by an IPE faculty team

Choose the level that characterizes your department: ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ Unable to assess

Procedures. The survey was initiated by the College's Academic Affairs Committee and presented to the College's Executive Committee (department heads, Dean, Associate and Assistant Deans, and executive staff) for approval. Subsequent to this approval, the survey was introduced and explained to participants at a College-wide faculty and staff Town Hall meeting. Data collection began a week following the Town Hall meeting and concluded four weeks later.

Each department (including the school of Nursing) completed one survey (n=7). In smaller departments, the department head and the entire faculty worked together to complete the survey. In larger departments, the Executive Committee (committee chairs and the department head) worked together to complete the survey. In addition to providing scaled responses, some departments included narrative comments, e.g., to clarify the courses in which they reported IPE was integrated.

Data Analysis. Data from the scored items were coded and entered into *Statistical Package for the Social Sciences (SPSS)* software (Version 17.0 for Windows) for analysis. Frequency counts and percentages were calculated. Tests of differences between departments for the variables under study were not calculated due to the limited data.

RESULTS

As shown in Table 2, use of IPE collaborative concepts in courses and clinical rotations was reported by 4 of the 7 college departments (including the School of Nursing). Scores for use of IPE concepts within courses ranged from 1 to 3, with most departments indicating that IPE collaborative concepts were used within a single discipline's course for learners in that discipline. Only two departments indicated extending IPE collaborative concepts beyond a single discipline. Scores for use of IPE concepts within clinical rotations ranged from 0 to 2, with most (4 of 7) departments indicating that collaborative concepts were applied within a single discipline without planned interactions of learners from other disciplines. Similar scores were reported for use of IPE in community or Service-Learning projects, extra-curricular activities, and standardized evaluations.

Less than half (3 of 7) of the departments indicated that 76-100% of their students participated in some level of IPE. Little to no formal institutional or personnel support for IPE was reported. Five of the 7 departments indicated that faculty members were encouraged to participate in IPE as an add-on responsibility. One department reported that faculty participated in IPE out of personal interest. Faculty participation in IPE was not reflected in requirements for tenure and promotion.

**Table 2. Unit-specific interprofessional education (IPE)
findings from a survey of departments/schools (n=7) in a College of Health Professions**

Domain		
1. Educational Venues	Most Common Response (and Score)	Percentage (frequency)
Use of IPE concepts within courses	Inter-professional collaborative concepts within a single discipline's course for learners in that discipline (1)	57.1 (4)
Use of IPE concepts within clinical rotations	Inter-professional collaborative concepts within a single discipline placement for single discipline learners without planned interaction/integration of other learners (1)	57.1 (4)
Use of IPE in community projects/Service-Learning	Inter-professional collaborative community projects within a single discipline's placement for single discipline learners (1)	42.8 (3)
Use of IPE in extra-curricular activities	Inter-professional collaborative extracurricular activities coordinated by a single discipline for single discipline learners (1)	42.8 (3)
2. Educational Evaluation		
IPE standardized assessment/evaluation	Inter-professional collaborative assessment/evaluation within a single discipline conducted by a single discipline for their learners (1)	42.8 (3)
3. Programmatic Participation		
Health professional student or program participation in IPE	Of all students or programs, 76-100% participate in some level of IPE (4)	42.8 (3)

Table 2: continued

4. Institutional Support		
IPE personnel support	No staff dedicated to IPE (0)	100.0 (7)
Institutional policy support for IPE	IPE or similar language does not appear in official or unofficial institutional documentation (0)	57.1 (4)
5. Faculty Incentive		
IPE faculty members	Faculty members are encouraged to participate in IPE/team teaching (add-on responsibility) (2)	71.4 (5)
Faculty IPE incentives	Participation in IPE is considered and viewed as neutral, with no effect on promotion and tenure (2)	28.6 (2)

DISCUSSION

During the past three years, faculty and staff in the College have been encouraged to participate in a series of initiatives to facilitate leadership, efficiency and increased effectiveness in the preparation of students for successful academic and clinical learning outcomes. One of these initiatives is the re-shaping of undergraduate and graduate coursework, with a particular focus on facilitating interprofessional education and core collaborative competencies. This focus addresses the guiding principles of the WHO and the IOM for students to learn, practice, and be prepared for interprofessional healthcare that is patient-centered, safe, timely, equitable, and efficient (IOM 2000, 2001, 2003, 2009; WHO, 2010).

Faculty and staff also had expressed their interest in stronger preparation of students in areas such as public health, evidence-based practice, cultural competency, ethics, and research methodology. Faculty believed such content could be accommodated in the re-shaping of undergraduate and graduate coursework with its increased focus on IPE and core collaborative competencies. At the Town Hall meeting prior to the administration of the IPE survey, participants had developed and agreed upon the following goals:

1. All graduates from the College will (a) understand that interprofessional care is an integral aspect of their chosen profession, (b) participate in interprofessional collaborative learning and service delivery, and (c) demonstrate proficiency in core collaborative interprofessional competencies.
2. All graduates from the College will be highly qualified to work in the healthcare professions.
3. The effective preparation of students for graduate study in the College will be facilitated by their completion of a series of core interprofessional courses during their undergraduate program.

Effective implementation of these goals was dependent on faculty and staff having a comprehensive view of the IPE activities underway in the College. This information was obtained from the survey. Data showed that most departments (including the School of Nursing) indicated that the importance of IPE in courses, clinical practice, community projects (including Service-Learning), and extra-curricular activities was stressed in discipline-specific content and documentation, but was not implemented across departments. Departments recognized the value of students working together in inter-disciplinary teams, particularly regarding their engagement in the community, but felt that geographical, scheduling, and accreditation practicalities limited their ability to engage students in such opportunities.

Departments reported faculty were encouraged to participate in IPE but recognized that such faculty participation, unless documented in peer-reviewed journals, had little effect on Tenure and Promotion considerations. There was general agreement that having staff designated to assist in the implementation of IPE would be welcome.

The data from the survey were shared with the College's Executive Committee and then with faculty and staff. There was general initial disbelief in the results and it took some time for faculty to digest the implications of the data. The primary issues with which faculty needed to come to terms were: (1) the perception that they were deeply involved in IPE when data showed otherwise; (2) their misperception that IPE could be implemented effectively within a department; and (3) their perception that they knew a great deal about IPE when there was much

more to learn. Following this period of discomfort and adjustment, several Working Groups were established in the Fall 2011 semester. One Working Group held a series of College-wide Town Hall meetings to address the need to update the vision and mission of the College. As a result, the vision and mission statements were revised and interprofessional education, clinical preparation, and research became key terms in the document. A second Working Group convened to develop a College-wide system to promote faculty and staff agreement on the WHO's definition of IPE and integrate the IPEC panel's core collaborative competencies into the undergraduate and graduate curricula. An extensive literature on IPE was collated and shared. A third Working Group focused on strategies to implement IPE in clinical externships.

Recognizing the importance of measuring the effectiveness of these initiatives, the plan is to re-administer the survey in the spring 2012 semester as an initial step in documenting progress. Although one of the early reactions to the first survey was to "shoot the messenger," the data derived from the survey were instrumental in facilitating a needed dialogue about the true nature of interprofessional education and how interprofessional education opportunities can be implemented more effectively to benefit students and faculty.

CONCLUSIONS

1. As judged from responses to a survey, all units in the College demonstrated an interest in IPE but generally discussed IPE only within their particular discipline.
2. Departments were largely unaware of IPE activities in units outside their own.
3. Completion of the survey increased respondents' awareness of an accepted definition of IPE and facilitated a needed dialogue about IPE and its effective implementation across departments.

AUTHOR INFORMATION

Dr. Lynette Goldberg is the John and Ruby Hendren Distinguished Professor in Communication Sciences and Disorders at Wichita State University. E-mail: lyn.goldberg@wichita.edu. Corresponding author.

Dr. Victoria Mosack is an Assistant Professor in the School of Nursing at Wichita State University. E-mail: victoria.mosack@wichita.edu

Dr. Jean Brickell is an Associate Professor and Chair of the Medical Technology department at Wichita State University. E-mail: jean.brickell@wichita.edu

All authors are involved in interprofessional education and the initiatives underway at Wichita State University.

REFERENCES

1. Arndt, J., King, S., Suter, E., Mazonde, J., Taylor, E., & Arthur, N. (2009). Socialization in health education: Encouraging an integrated interprofessional socialization process. *Journal of Allied Health*, 38(1), 18-23.
2. Association for Prevention Teaching and Research. (2009). *Interprofessional education assessment and planning instrument for academic institutions*. Washington, DC: Author.
3. Buelow, J.R., Downs, D., Jorgenson, K., Karges, J.R., & Nelson, D. (2008). Building interdisciplinary teamwork among allied health students through live clinical case simulations. *Journal of Allied Health*, 37(2), e109-123.
4. Goldberg, D. G., Clement, D.G., & Cotter, J.J. (2011). Development and alumni assessment of an interdisciplinary PhD program offered through a blended learning environment. *Journal of Allied Health*, 40(3), 137-142.
5. Goldberg, L.R., Koontz, J.S., Downs, D., Uhlig, P., Kumar, N.G., Shah, S., Clark, P.E., Coiner, C., & Crumrine, D. (2010). Infusing an inter-professional and inter-university perspective into healthcare education. *Higher Education Research & Development*, 29(4), 421-431.

6. Goldberg, L.R., Koontz, J.S., Rogers, N., & Brickell, J. (in press). Considering accreditation in gerontology: The importance of interprofessional collaborative competencies to ensure quality healthcare for older adults. *Journal of Gerontology and Geriatrics Education*.
7. Harris, D., Henry, R., Bland, C., Starnaman, S., & Voytek, K. (2003). Lessons learned from implementing multidisciplinary health profession educational models in community settings. *Journal of Interprofessional Care*, 17(1), 7-20.
8. Heuer, A.J., Geisler, S.L., Kamienski, D., Langevin, D., & Maillet, J.O'S. (2010). Introducing medical students to the interdisciplinary health care team: Piloting a case-based approach. *Journal of Allied Health*, 39(2), 76-80.
9. Interprofessional Education Collaborative Expert Panel. (2011a, February). *Team-based competencies: Building a shared foundation for education and clinical practice*. Washington, DC: Interprofessional Education Collaborative.
10. Interprofessional Education Collaborative Expert Panel. (2011b, May). *Core competencies for interprofessional collaborative practice: Report of an expert panel*. Washington, DC: Interprofessional Education Collaborative.
11. Institute of Medicine. (2000). *To err is human: Building a safer health system*. Washington DC: The National Academies Press.
12. Institute of Medicine. (2001). *Crossing the quality chasm: A new health system for the twenty-first century*. Washington DC: The National Academies Press.
13. Institute of Medicine. (2003). *Health professions education: A bridge to quality*. Edited by A. Greiner, and E. Knebel. Board on Health Care Services. Washington, DC: The National Academies Press.
14. Institute of Medicine. (2009). *Health literacy, ehealth, and communication: Putting the consumer first: Workshop summary*. Edited by L.M. Hernandez. Board on Population Health and Public Health Practice. Washington, DC: The National Academies Press.
15. Johnson, A.W., Potthoff, S.J., Carranza, L., Swenson, H.M., Platt, C.R., & Rathbun, J.R. (2006). CLARION: A novel interprofessional approach to health care education. *Academic Medicine*, 81(3), 252-256.
16. Montagnini, M., Clark, P.G., Dodd, M.A., Goodwin, C., Kaiser, R.M., Periyakoil, V.S., Ramsel, D., Sanchez-Reilly, S.E., Semla, T.P., Smith, H., Supiano, K., Tsukuda, R.A., & Zeiss, A. (2011). Position statement on interdisciplinary team training in geriatrics: An essential component of quality healthcare for older adults. Partnership for Health in Aging Workgroup on Interdisciplinary Team Training. Available from: <http://www.americangeriatrics.org/pha>. Accessed July 2, 2011.
17. Reeves, S., Zwarenstein, M., Goldman, J., Barr, H., Freeth, D., Hammick, M., & Koppel, I. (2009). *Interprofessional education: Effects on professional practice and health care outcomes (Review)*. The Cochrane Collaboration, John Wiley & Sons, Ltd.
18. Remington, T.L., Foulk, M.A., Williams, B.C. (2006). Evaluation of evidence for interprofessional education. *American Journal of Pharmaceutical Education*, 70(3), Article 66, 1-7.
19. Rose, M.A., Smith, K., Veloski, J.J., Lyons, K.J., Umland, E., & Arenson, C.A. (2009). Attitudes of students in medicine, nursing, occupational therapy, and physical therapy toward interprofessional education. *Journal of Allied Health*, 38(4), 196-200.
20. Simmons, B., & Wagner, S. (2010). Assessment of continuing interprofessional education: Lessons learned. *Journal of Continuing Education in the Health Professions*, 29(3), 168-171.
21. World Health Organization. (2010). *Framework for action on interprofessional education and collaborative practice*. Geneva: Author.
22. Zoghi, M., Brown, T., Williams, B., Roller, L., Jaberzadeh, S., Palermo, C., McKenna, L., Wright, C., Baird, M., Schneider-Kolsky, M., Hewitt, L., Sim, J., & Holt, T-A. (2010). Learning style preferences of Australian health science students. *Journal of Allied Health*, 39(2), 95-103.