Priorities, Strategies, and Accountability Measures in Interprofessional Education

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PURPOSE: The purpose of this pilot study was to identify the priorities, strategies, and accountability measures for interprofessional education (IPE) being used by health professions programs, allied health colleges, and/or universities. METHOD: An electronic survey was sent to 114 deans, associate deans, and directors (program, clinical education, graduate studies) at six institutions with allied health programs, including three academic medical centers and three comprehensive public institutions. The survey consisted of basic demographic questions and questions assessing knowledge of the Interprofessional Education Collaborative (IPEC) concepts of IPE, program-specific accreditation requirements for IPE, and institutional priorities, strategies, and accountability measures for IPE activities. RESULTS: An overall response rate of 50% (57/114) was achieved with representation from a total of 34 different allied health programs. Chi-squared statistics showed statistically significant differences (p<0.05) between the frequencies of survey responses and institutional types in the inclusion of IPE in the college/school’s vision, the physical space available to accommodate IPE needs, and the commitment to set aside time for IPE. CONCLUSION: This study found that there is not a clear mandate or direction from most allied health disciplinary accrediting bodies for IPE. While there appears to be distinct movement by institutions to hold programs accountable for IPE and to integrate IPE into the curricula, barriers remain that have slowed the desired degree of implementation of an interprofessional curricula. While institutions, college, and/or programs may be slow to formally include IPE in its vision, this study found that, in general, support is being provided for IPE activities. J Allied Health 2014; 43(3):e37–e44.
patient-centered care, interdisciplinary teams, evidence-based practice, quality improvement, and informatics. In turn, these core areas provided the impetus for the creation of an Interprofessional Education Collaborative Expert Panel (IPEC) in 2011. This panel identified four competency domains that reinforced the five core areas identified in the 2003 IOM report by further defining the interprofessional competencies:

1) values/ethics for interprofessional practice,
2) roles and responsibilities,
3) interprofessional communication, and
4) teams and teamwork.

Within these competency domains are additional competencies which serve as learning objectives and activities. Zorek and Raehl assessed the accreditation mandate for IPE and interprofessional collaborative practice (IPCP) through content analysis of IPE accreditation statements for all practice-level degrees in dentistry, medicine, nursing, occupational therapy, pharmacy, physical therapy, physician assistant, psychology, public health, and social work. Utilizing keywords chosen based on their frequency of use in the IPE/IPCP literature, 205 potentially relevant IPE/IPCP statements were identified in 18 of the 21 accreditation documents analyzed in 2011. These statements were then categorized as either applicable (n=178) or nonapplicable (n=27). The 178 statements identified as applicable to IPE were further categorized into either accountable (n=60) or nonaccountable (n=118). The authors concluded that U.S. accrediting bodies lack a collective mandate for IPE, which is regrettable given that academic institutions must respond to accreditation requirements. While more progressive academic institutions will embrace IPE, producing graduates prepared for IPCP, the lack of IPE directives “leave the healthcare landscape dotted with IPCP-ready professionals rather than transforming it.”

Health professions educators agree that in order to promote quality outcomes in patient care, practitioners must be able to understand and respect the contributions of each professional on the healthcare team, communicate effectively with each other about the appropriate plan of care, and collaborate in the decision-making process. Despite the tremendous advances in defining IPE, questions remain as to the implementation of IPE into our curricula. This pilot study identified the priorities, strategies, and accountability measures for IPE being used by health professions programs, allied health colleges, and/or universities. Particularly, this study sought to determine if accrediting bodies have established clear mandates for the inclusion of IPE in allied health programs and the strategies that programs are using to address these mandates. On an institutional level, the study determined if programs were being held accountable for the inclusion and advance-ment of IPE in curricula, and if so, the measures being utilized to assess IPE outcomes. Finally, the study ascertained the limitations or barriers that programs have experienced in their efforts to incorporate IPE into their curricula and the resolutions to these barriers that have been created.

Methods

The study participants were college administrators at six institutions with allied health programs: three academic medical centers and three comprehensive public institutions. As a pilot study conducted in partial fulfillment of the requirements of the Association of Schools of Allied Health Professions’ Leadership Development Program, this was a convenience sample consisting of the institutions represented by the authors. An electronic survey was sent to 114 deans, associate deans, and directors (program, clinical education, graduate studies), with 50% (57/114) responding. Approval as an exempt study was obtained from the University of Arkansas for Medical Sciences IRB prior to administration of the survey (IRB protocol no. 202144).

A 13-item survey was employed using SurveyMonkey®. Created with guidance from a design and evaluation specialist, the survey consisted of 3 basic demographic questions and 10 questions assessing knowledge of the IPEC concepts of IPE, program-specific accreditation requirements for IPE, and institutional priorities, strategies, and accountability measures for IPE activities. The survey was piloted among a small group of faculty in another college at one institution to establish face and content validity. Data were collected over a 1-month period. A summary of the survey questions is provided in Table 1.

Results

An overall response rate of 50% (57/114) was achieved, with 11% (6/57) of respondents identifying themselves as deans or associate deans, 58% (33/57) as chairs or program directors, 23% (13/57) as directors of clinical education, directors of graduate studies, or program coordinators, and 9% (5/57) as faculty. The majority of respondents (54%; 31/57) were employed at comprehensive public institutions, while 46% (26/57) were employed at academic health sciences medical centers. The six institutions surveyed represented a total of 34 different allied health programs offering awards ranging from certificates to doctoral degrees. The most frequently reported programs were physical therapy (86%; 48/56), speech-language pathology (84%; 47/56), and occupational therapy (70%; 39/56).

Chi-squared statistics (test of independence) were performed to examine the relationship between survey responses and institutional type: academic medical centers (54%; 31/57) and other institutional types (46%;
26/57) comprehensive public institutions. There were statistically significant differences (p<0.05) between the frequencies (percentages) of survey responses and institutional types in the inclusion of IPE in the college/school’s vision, the physical space available to accommodate IPE needs, and the commitment to set aside time for IPE. A higher percentage of academic medical centers were found to have IPE in their strategic plan as a part of their vision than the other institutional types, $\chi^2(1, n=57) = 10.35, p<0.05$ (see Table 2).

Accordingly, a higher percentage of respondents from other institutional types (25%; 14/57) than academic medical centers (3/57; 5%) responded with “none of the above” when asked if IPE was included in their mission statement, strategic plan, college/school goal statement or curriculum goal statement as a part of their vision, $\chi^2(1, n=57) = 6.76, p<0.05$. Lastly, a higher percentage of respondents from academic medical centers than from the other institutional types reported to have committed time for IPE, $\chi^2(1, n=57) = 4.55, p<0.05$, and have adequate physical space to accommodate all participants in IPE activities, $\chi^2(1, n=57) = 4.94, p<0.05$.

**Discussion**

The purpose of this study was to identify the priorities, strategies, and accountability measures for IPE being used by health professions programs, allied health colleges, and/or universities. In making this determination, the investigators sought to determine if accrediting bodies for professional programs have established clear mandates for the inclusion of IPE in allied health programs. Twenty-five percent (14/57) of respondents indicated that their programs had accreditation requirements that were directly or indirectly related to IPE. Respondents specifically noted that the Accreditation Review Commission on Education for the Physician Assistant, the Accreditation Council for Occupational Therapy Education, and the Commission on Dental Accreditation included at least one requirement related to IPE. One respondent noted that “most all of our programs have indirect requirements,” while another respondent stated, “No, not explicitly. There are goals for students to participate in interdisciplinary care in the clinic—specifically with emphasis on professional duty, integrity, communication, and plan of care.” Interestingly, the remaining 75% (43/57) of respondents reporting that their programs did not have accreditation requirements directly or indirectly related to IPE (35%; 20/57) or elected to skip this question (40%; 23/57).

Figure 1 depicts where leadership of these institutions are holding programs accountable for IPE. The majority of respondents (42%; 23/55) indicated that IPE was in their strategic plan, while 35% (19/55) indicated it was in their college or school goal statement, 20% (11/55) reported IPE as part of their curriculum goal statement, and 18% (10/55) indicated that IPE was part of their mission statement. One respondent (2%; 1/55) reported an IPE statement included in course syllabi, while another respondent (2%; 1/55) reported IPE included in the program’s core values. Nearly one-third of respondents (31%; 17/55) reported that IPE was not included in any of these documents.

Described in Figure 2, institutions identified the mechanisms in place to assist IPE activities. In support of IPE activities, nearly two-thirds of the respondents (71%; 32/45) reported that their college and/or program has set aside time for students to participate in IPE activities, with 39% (18/46) having calendar and schedule agreements among participating programs. In terms of personnel support for IPE, 46% (21/46) reported having personnel with the expertise to develop simulation experiences with interprofessional objectives, with 37% (17/46) of respondents indicating adequately trained personnel to debrief IPE experiences. The majority of respondents stated that their institution has adequate rooms and facilities (60%; 27/45) and technology (58%; 26/45) available to accommodate IPE activities.

One-third of respondents (33%; 16/49) indicated their institution or college has established a sense of community presence through the initiation of community-based IPE activities (Fig. 3). Nearly two-thirds of respondents (72%; 33/46) reported having opportunities for collaborative practice in the community, with 47% (23/49) having received commitment from community partners for IPE activities. Sixty-one percent of respondent (30/49) indicated that they or their institution had created community-based IPE projects which include a diversity of professions. Service learning experiences (2%; 1/49), interactive health care gaming (2%; 1/49), and a student-led interprofessional health and wellness center (2%; 1/49) were mentioned by respondents.

**Table 1. Chi-Square Contingency Table**

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<th></th>
<th>Academic Med Center</th>
<th>Comprehensive Public</th>
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<tr>
<td></td>
<td>f (%)</td>
<td>f (%)</td>
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<tr>
<td>IPE in strategic plan</td>
<td>Yes</td>
<td>No</td>
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<td></td>
<td>16 (28%)</td>
<td>9 (16%)</td>
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<tr>
<td>Physical space for IPE</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>needs</td>
<td>16 (28%)</td>
<td>9 (16%)</td>
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<tr>
<td>Commitment of time for IPE</td>
<td>Yes</td>
<td>No</td>
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<td></td>
<td>18 (32%)</td>
<td>7 (12%)</td>
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The study also examined if university/college/program leadership holds professional programs accountable for the inclusion and advancement of IPE in the curriculum by incorporating accountability measures to evaluate the impact of IPE activities on student learning. The most frequently reported IPE activities utilized by the allied health programs surveyed were a common course or courses within the curriculum (72%; 39/54), special events with invited speakers (72%; 39/54), and community-based projects (67%; 36/54). Mechanisms by the institutions used to assess the outcome of these activities are provided in Figure 4. Most frequently utilized were measures of students’ attitudes and perceptions toward IPE (82%; 37/45) and knowledge of IPE (80%; 36/45). Respondents also noted the use of IPE skills or competency evaluations (53%; 24/45), patient-oriented outcomes (40%; 18/45), and student satisfaction with IPE (38%; 17/45) as assessment measures utilized. Over two-thirds of respondents (67%; 33/49) reported that student reflection was included as part of the IPE activity.

Depicted in Figure 5, respondents were asked to rank the limitations or barriers that they have experienced which influenced the ability to successfully implement IPE. Lack of available time in the curriculum (37%; 20/54) and lack of faculty time (22%; 12/54) were ranked as the greatest barriers, followed by differing or conflicting understanding of IPE (13%; 7/54), lack of commitment by students and/or faculty (7%; 4/54), lack of financial resources (7%; 4/54), lack of faculty skill in IPE (6%; 3/54), and lack of leadership or support from administration (6%; 3/54). Lack of physical space

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**TABLE 2. Summary of Survey Questions**

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<th>Question</th>
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<tr>
<td>1. What is your primary academic role?</td>
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<td>2. What classification is your institution?</td>
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<td>3. Which health professions programs are offered by your college/school?</td>
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<td>4. Where does your college/school include IPE as part of its vision?</td>
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<td>5. What types of IPE activities do you consider IPE?</td>
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<td>6. Does your program(s) have accreditation requirements directly or indirectly related to IPE?</td>
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<td>7. What outcome measures do you use to evaluate the impact of IPE activities on student learning?</td>
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<td>8. What didactic learning experiences are currently in place for IPE in your institution/college/program?</td>
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<tr>
<td>9. What community-based learning experiences for students are currently in place for IPE in your institution/college/program?</td>
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<tr>
<td>10. What interprofessional experiences for students are currently in place for IPE in your institution/college/program?</td>
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<tr>
<td>11. Identify barriers to successfully implementing IPE in your program/department/institution.</td>
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<tr>
<td>12. List exemplars you have experienced in delivering IPE.</td>
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<tr>
<td>13. Identify challenges you have encountered in your efforts in IPE.</td>
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**FIGURE 1.** Where does your college/school include IPE as part of its vision?
to accommodate IPE was not ranked as a significant barrier by any of the respondents.

When asked to summarize the challenges encountered in their IPE efforts, one respondent summarized the response of several (44%; 11/25) by stating, “Time, money, and buy-in.” Other responses included “silo mentality in some departments,” “inaccurate perspectives of my own discipline by other healthcare professionals” and “dominance by one or more professions,” “issues of experience and expertise when students are at different levels of study.” One respondent noted, “It can take a great deal of time to coordinate various disciplines’ schedules. Once that is accomplished, it can be difficult to have someone step forward to take responsibility for the development of the programming needed to make the experience successful. Everyone thinks it is a grand idea, but no one seems to have the time to devote to the project.”

Respondents noted that it is often difficult to write learning objectives that are inclusive of the professions included in the activity and are at the appropriate level for an often mixed group of students. One respondent encouraged those planning IPE activities to consider “grouping of pre-professionals who will continue to interact with each other upon graduation, and not try to force disparate fields into an unnatural union.” It was also noted that it can be challenging to meet the significant profession-specific demands placed on programs by accrediting bodies, all the while determining how IPE can address some of those requirements or if the time dedicated to IPE is detracting from the limited time available to address necessary curricular content. One respondent wrote, “Although it is a great concept, many are unsure if implementation is truly possible in the current academic and health care culture. I believe that there is much to be gained by IPE; however, I do believe that it needs careful planning and constant evaluation to be effective for all participants.”

Respondents were asked to offer solutions to these barriers by sharing exemplars experienced in delivering IPE. The two most frequently mentioned exemplar IPE
activities were a common book or reading experience (15%; 4/27) and IP clinical experiences to include grand rounds, a mobile clinic, and a student-led interprofessional health and wellness center (15%; 4/27). Additional examples included a seminar or retreat on the subject of cultural competency (11%; 3/27) and IP simulation activities (11%; 3/27). At least one respondent cited a dean’s honors colloquium, an interactive health care game to enhance education about roles and expertise of the various disciplines, a LEND (Leadership Education in Neurodevelopmental Disabilities) program which offers local and regional opportunities for IPE, an interprofessional project that provides diagnostic evaluations for children with autism, and service opportunities that allow faculty, staff, and students to “get to know” other professionals on campus. Service learning and community partnerships were also noted as a successful mechanism by which to promote IPE. One respondent commented that “the one IPE experience that was successful in getting students to appreciate other health professions was a problem-based learning class. The class, however effective at promoting interprofessional respect, was universally hated, primarily due to the difficulties in defining learning objectives.” Another respondent summarized an exemplar IPE activity as that which provides “greater understanding of the role of different professions, collaboration bringing about more desirable outcomes, financial benefits of sharing resources, and better utilization of faculty time by sharing responsibility for teaching and learning.”

Context

The concept of interprofessional education is not new. As early as 1965, the value of disciplines working together to enhance the health of both the individual and society was recognized. Coggeshall, a medical educator, proposed the concept of medicine as “a single discipline concerned with only the restoration of individual health from the diseased state should be replaced by the concept of health professions working in concert to maintain and increase the health of society as well as the individual.” Coggeshall also advocated the need for program accreditation for the various health professions. While this has been achieved for the most part, it is interesting to note that accreditation bodies have been relatively slow in specifically including IPE in their standards.

Only 25% of the respondents indicated that their accreditation standards specifically include IPE, with only three accrediting bodies out of the 34 different allied health programs represented by the faculty responding to the survey identified: physician assistant studies, occupational therapy, and dentistry. These findings highlight the fact that recognition of the importance of IPE by accrediting bodies is in its infancy and that accountability measures are generally lacking in regards to clearly established accreditation standards. A report by the Interprofessional Education Collaborative Expert Panel in 2011 noted that training students for interprofessional collaborative practice has lagged behind the reality of current health care practice. To encourage and strengthen commitment to IPE, the American College of Nursing integrated interprofessional collaboration behavioral expectations into its “essentials” for the baccalaureate in 2008, the Accreditation Council for Pharmacy Education in 2011 adopted language supportive of IPE, and the Commission on Dental Accreditation adopted collaborative practice standards in 2013. The adoption of the Recover...
ery and Reinvestment Act of 2009 and the Patient Protection and Affordable Care Act of 2010 has led to the incorporation of interprofessional approaches in patient care.7,8 One potential reason for this momentum may be the recognition of the essential nature of team-based or interprofessional care in providing high-quality patient care.

While the majority of institutions, colleges, and/or programs have yet to formally include IPE in their vision, this study found that support is being provided for IPE activities. While nearly a third of respondents reported that IPE was not included in any institutional, college, or program formal communications such as the strategic plan, mission statement, or goal statements, the majority of respondents indicated that IPE is supported. The most common support being dedicated time for IPE activities, adequate facilities and technology to support IPE, and faculty and staff with training in IPE methodology.

A possible reason for the relatively slow adoption of IPE may be barriers presented by established professional culture. Hall found that “each health care profession has a different culture which includes values, beliefs, attitudes, customs and behaviors.”9 She further explained that the increasing specialization of each profession has deepened practitioner’s immersion in their respective cultures. While new students and practitioners of a particular discipline are inculcated into this culture, it remains obscure to those outside of a particular profession.9 This professionalization process may account for the following respondents’ comments when asked about challenges to IPE: “time, money and buy-in,” “silo mentality in some departments,” and “inaccurate perspectives of my own discipline by other healthcare professionals.” Incorporating IPE core competencies into the professionalization process that occurs during the education of new practitioners may be an effective strategy for developing professional cultures with attitudes, beliefs, and values that support interprofessional collaborative care.

One respondent indicated that there were “inaccurate perspectives of my own discipline by other healthcare professionals” and “dominance by one or more professions.” This finding is consistent with those reported in a number of studies in which a lack of understanding of other healthcare disciplines’ roles can limit effective interprofessional collaboration.10–13 However, Reeves et al. notes that some progress has been made and suggests that providing insight into the culture of each profession can guide the methodological approach to IPE. They found that IPE has been effective in changing learners’ attitudes about other healthcare disciplines, enhancing their knowledge of other healthcare disciplines, improving collaboration among disciplines, and ultimately, enhancing the delivery of patient care.14 Early immersion in IPE has the potential to prevent discipline-specific culture from establishing barriers that are difficult to transcend and to truly provide the platform for interprofessional collaborative practice.

LIMITATIONS

In this pilot study, data were collected from a convenience sample of six institutions located in the southern and midwestern regions of the United States. A larger and more robust study involving member allied health professions’ school and colleges from across the country is planned to determine if similar findings exist. While 34 disciplines were represented in this pilot study, many allied health professions were not. A larger sample of institutions may provide more representation of the variety of allied health disciplines. While the focus of this study was primarily administrators, the inclusion of faculty may present a differing set of responses. Additional research may also want to examine the evolution of IPE over time.
Conclusions

Results of this pilot study indicate a lack of a clear mandate or direction from most allied health accrediting bodies for IPE. While there appears to be distinct movement by institutions to hold programs accountable for IPE and to integrate interprofessional activities into the curricula, barriers remain that have slowed the desired degree of implementation of an interprofessional curricula at most of the institutions surveyed. Results also indicated that different types of institutions may face unique barriers to implementation of interprofessional curricula. In order for it to be successful, IPE has to be initiated early in and frequently throughout the educational process. Incorporating IPE core competencies into the professionalization process that occurs during the education of new practitioners may be an effective strategy for developing professional cultures with attitudes, beliefs, and values that support interprofessional collaborative care.

References