

Interprofessional Educational Opportunities and Medical Students' Understanding of the Collaborative Care of Patients

The 2009 formation of the Interprofessional Education Collaborative and its “Core Competencies for Interprofessional Collaborative Practice” report¹ highlight a renewed attention to interprofessional education (IPE). IPE refers to “students from two or more professions learn[ing] about, from, and with each other to enable effective collaboration and improve health outcomes. [IPE] is a necessary step in preparing a ‘collaborative practice-ready’ health workforce that is better prepared to respond to local health needs.”² Interest in promoting IPE in U.S. medical and other health professions schools is not new.^{1,3} Yet with the Patient Protection and Affordable Care Act signed into law in 2010, the focus on improving the health care system by providing higher-quality, low-cost care has intensified the need for providing care through interdisciplinary teams.⁴ Research also demonstrates improved patient outcomes associated with interprofessional team-based care.⁵

IPE efforts have varied across U.S. medical schools. Studies have identified barriers to fully integrating IPE into curricula, as well as implementing and evaluating such models in practice.^{4,5} Nevertheless, the Liaison Committee for Medical Education (LCME) approved a new medical school accreditation standard beginning in the 2014-2015 accreditation cycle addressing the role of IPE in support of team-based care. Assessing medical students’ understanding of the collaborative care of patients is important for identifying

potential barriers to fully integrating IPE into curricula, and an examination of student perceptions of IPE is warranted.⁵

This *Analysis in Brief* examines data on medical students’ reports of curricula-based IPE opportunities. Specifically, it examines the extent to which 1) the breadth of exposure to students from a greater number of different health professions enhances medical students’ understanding of collaborative care of patients, and 2) whether there is a relationship between this breadth of exposure and overall satisfaction with medical education.

Methodology

Data come from the AAMC 2011 to 2014 Graduation Questionnaire (GQ), which is an annual survey administered to graduating medical students.⁶ These data reflect responses from 52,076 graduates of LCME-accredited U.S. medical schools, or roughly 80 percent of all medical students who graduated over these four academic years.

Questions specific to IPE experiences were added to the GQ in 2011. Respondents were asked: “Have you participated in any required curricular activities where you had the opportunity to learn with students from different health professions?”

Table 1: Medical School Graduates' Responses to the Graduation Questionnaire (GQ) Item: “With which other profession(s) have you had the opportunity to participate or interact in educational activities? Select all that apply.”

	% of ALL respondents ^a	% of respondents with IPE experience ^b
At Least Some IPE Experience	71.1	—
<i>Health Professions</i>		
Nursing	57.9	81.4
Pharmacy	56.9	79.9
Physician Assistants	46.5	65.3
Social Work	36.8	51.7
Physical Therapists	34.8	48.9
Occupational Therapy	25.8	36.3
Dentistry	20.7	29.1
Osteopathic Medicine	20.6	28.9
Psychology	18.1	25.4
Public Health	15.4	21.7
Veterinary Medicine	1.3	1.9
Other	3.3	4.7

Note: a. N=52,076; b. N=37,049.

Source: AAMC 2011–2014 Graduation Questionnaire (GQ).⁶

1 Interprofessional Education Collaborative Expert Panel. Core Competencies for Interprofessional Collaborative Practice: Report of an Expert Panel. 2011. Washington, DC.: Interprofessional Education Collaborative.
 2 World Health Organization (2010): Framework for Action on Interprofessional Education & Collaborative Practice. Available at: http://www.who.int/hrh/resources/framework_action/en/.
 3 Coggeshall LT. Planning for Medical Progress through Education. 1965. Association of American Medical Colleges, Evanston, IL.
 4 Robert Wood Johnson Foundation. Team-Based Competencies: Building a Shared Foundation for Education and Clinical Practice. Conference Proceedings, February 16–17, 2011. Washington, DC.
 5 Liston BW, Fischer MA, Way DP, Torre D, Papp KK. Interprofessional education in the internal medicine clerkship: results from a national survey. 2011. *Acad Med.* 86:872–876.
 6 For more information see <https://www.aamc.org/data/gq/> and <https://www.aamc.org/download/397432/data/2014gqallschoolsummaryreport.pdf>.

Response options were: Yes (N=37,362), No (N=10,320), and Not Sure (N=4,394). A total of 52,076 students responded to this question. Those who responded “yes” were asked: “With which other profession(s) have you had the opportunity to participate or interact in educational activities? Select all that apply.” Students were provided 11 professions plus “Other.”

The percentage of respondents who “strongly agree”⁷ to 1) “The learning experience with other health professions students helped me gain a better understanding of the roles of other professions in care of patients,” and 2) “Overall, I am satisfied with the quality of my medical education” were plotted against the number of distinct professions with which they shared educational experiences. These plots reveal associations between breadth of exposure to IPE and metrics tapping into quality of education.

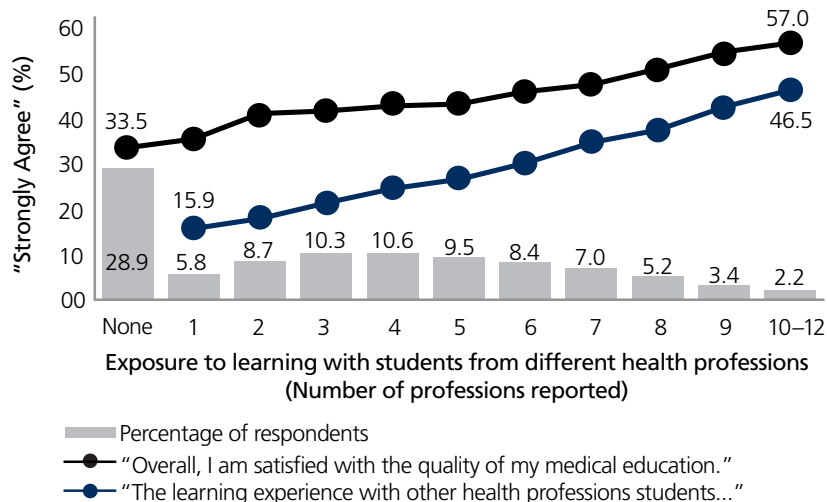
Results

Over two-thirds (71.1 percent) of respondents reported having had curricular-based opportunities to learn with students from different health professions (Table 1). Among those who reported having had such opportunities, 99 percent identified at least one other health profession (N=37,049). Notably, a majority of these students reported having had a curricular-based opportunity to learn with nursing (81.4 percent), pharmacy (79.9 percent), physician assistant (65.3 percent), and social work (51.7 percent) students, and nearly half (48.9 percent) reported the opportunity to learn with physical therapy students.

Just over a third (35.4 percent) of all respondents reported having had the opportunity to learn with students from between one and four different health professions (Figure 1). The remaining 35.7 percent of respondents reported five or more professions.

Results also show a greater breadth of exposure significantly increases the likelihood of “strongly agreeing” that learning from other health professions students provided a “better understanding of the roles of other professions in the care of patients” (Figure 1). The percentage who “strongly agree” steadily increases, from 15.9 for those reporting just one profession to 46.5 for those reporting more than nine professions. Further,

Figure 1: The Relationship Between the Number of Distinct Professions that Students Shared Educational Experiences With and the Percentage of Students Who “Strongly Agree” to 1) “The learning experience with other health professions students helped me gain a better understanding of the roles of other professions in the care of patients” and 2) “Overall, I am satisfied with the quality of my medical education.”



Note: Where the outcome variable is “The learning experience...” the responses from 37,049 students who reported having participated in required curricular activities that included learning with other health profession students were examined. Where the outcome variable is “Overall, I am satisfied...” responses from all respondents were examined (n=52,076). Source: AAMC 2011–2014 Graduation Questionnaire (GQ).⁶

among all respondents, a greater breadth of exposure significantly increases the likelihood of “strongly agreeing” to being “satisfied with the quality of my medical education.” The percentage increases from 33.5 for those reporting no opportunities to 57.0 for those reporting more than nine professions. Analyses also reflect substantial variation across medical schools in the percentage of respondents reporting any IPE opportunities—ranging from 36 to 100 percent.

Conclusions

The findings suggest that medical students who learn alongside students from a greater number of other health professions also report having a better understanding of collaborative, interprofessional care of patients, and significantly higher levels of overall satisfaction with their medical training. These observed relationships do not imply causality; rather, they indicate that a greater diversity of IPE opportunities is associated with other educational and curricular experiences that enhance students’ understanding of interprofessional care and increase overall satisfaction with medical training.

Although barriers to curricula-based IPE may exist for some medical schools, such as an absence of role models, lack

of financial resources, and class space and time constraints,⁴ the results suggest that when students experience a greater breadth of IPE opportunities they perceive their medical education to be of higher quality. Additional longitudinal research on students’ experiences and perceptions has the potential to inform medical schools that are at various stages of implementing and institutionalizing IPE within the curriculum.^{2,3} These data therefore can help to strengthen metrics and research in examining the effectiveness of IPE.³ Future studies should examine trends in student reports of IPE opportunities as well as differences in responses by school type (e.g., freestanding versus part of health sciences university).

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7 Because more than 75 percent of respondents either agreed or strongly agreed to these two survey items, only “strongly agree” responses are included.