

Interprofessional Education and Collaborative Patient Care at U.S. Schools and Colleges of Optometry: A Special Report

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Interprofessional Education (IPE) and Interprofessional Practice (IPP) have been topics of discussion since the 1960s.^{1,2,3,4} Motivated by the changing healthcare environment over the past decades, this topic has increasingly gained prominence in the literature.

The Centre for the Advancement of Interprofessional Education (CAIPE) defines Interprofessional Education as occurring “when two or more professions learn with, from and about each other to improve collaboration and the quality of care.”⁵

In considering how health care might develop in subsequent decades, a committee within the World Health Organization (WHO) recognized the trend toward teamwork in 1977. What followed was a report recommending the inclusion of IPE in healthcare education as a means to improve collaboration and service delivery, as well as provide greater workforce flexibility. Explaining the rationale for IPE, the committee report stated that if different professions learn together they will work better together, which in turn improves care and delivery of service.⁶ This was in stark contrast to the traditional methods in healthcare education at that time in which each profession primarily trained students in

its own schools or colleges by members of the same profession.⁷

Six national education associations came together in 2009 to form the Interprofessional Education Collaborative (IPEC). The goal of their collaboration was to promote and encourage efforts to advance interprofessional learning experiences to help prepare future health professionals for enhanced team-based care of patients and improved population health outcomes. The original organizations included American Association of Colleges of Nursing, American Association of Colleges of Osteopathic Medicine, American Association of Colleges of Pharmacy, American Dental Education Association, Association of American Medical Colleges and the Association of Schools of Public Health.⁸

The Association of Schools and Colleges of Optometry (ASCO) became the first supporting organization of IPEC, which now also includes other supporters: Academic Consortium for Complementary and Alternative Health Care, American Association of Colleges of Podiatric Medicine, American Council of Academic Physical Therapy, American Physical Therapy Association, American Podiatric Medical Association, American Psychological Association, American Speech-Language-Hearing

Association, Council on Social Work Education, Physician Assistant Education Association and Society of Simulation in Healthcare.⁹

The efforts of the IPEC resulted in the 2011 report “Core Competencies for Interprofessional Collaborative Practice,” the tenets of which were included in ASCO’s 2011 revised “Attributes of Graduates of the Schools and Colleges of Optometry.”¹⁰ In 2013 ASCO formed an interprofessional education task force that was, in part, charged with identifying best practices within ASCO institutions to prepare graduates for team-based practice. With representation from different schools and colleges of optometry, this task force became an ad hoc committee of ASCO.

Identifying Current IPE and IPP Activities

To identify the current IPE and IPP activities at the schools and colleges of optometry, ASCO mailed a survey to each president and chief academic officer at the 21 schools and colleges of optometry in the United States. The 16-question survey, originally developed in 2011 by an ASCO Government Affairs staff member, was modified to ask about existing IPE activity as well as about attitudes, challenges and future

plans relating to IPE at each institution. (Appendix)

The results from the survey were collected and tabulated by ASCO staff and summarized for the ASCO task force.

All 21 schools and colleges of optometry took part in the ASCO survey. Nineteen reported their institution participated in IPE activities, and nine indicated IPE was a program requirement, as noted in Table 1.

The professions represented in the IPE activities included optometry, nursing, pharmacy, veterinary, law, physical therapy, medical doctor, opticianry, podiatry, dentistry, physician assistant, dental hygiene, psychology, social work, gerontology, speech-language pathology, low vision rehabilitation, public health, occupational therapy, doctor of osteopathic medicine, audiology and biomedical science professional students.

At the time of the survey, optometric faculty members participated in the IPE offerings of 18 of the 19 institutions with IPE activity. Most optometric faculty involvement was reported to be on a volunteer basis. Eight schools and colleges of optometry described IPE coursework involving students from different programs teaching one another (AZCOPT, MCO, MCPHS, NECO, PCO, PUCO, UABSO, and WUCO).

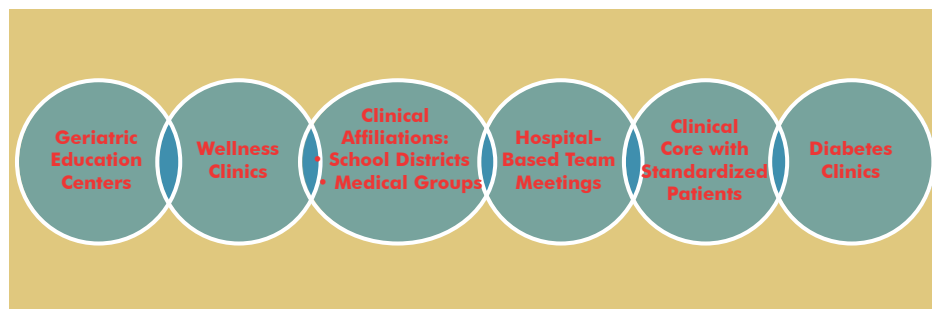
Examples of the IPE course offerings at U.S. schools and colleges of optometry include courses titled Interdisciplinary Healthcare, Clinical Reasoning, Team-Based Grand Rounds, Ethics in Healthcare, Interprofessional Education Series, Interprofessional Case Conference, Interprofessional Relations and Interprofessional Collaborative Practice, Evidence Based Practice, Global Health and Interdisciplinary Geriatric Care. Several schools and colleges of optometry include interprofessional education in various basic health science courses.

Twelve of the responding optometric institutions reported case-based discussion as an IPE activity (IUAPR, MCO, MCPHS, NECO, NOVA, PCO, PUCO, RSO, SCO, UABSO, UMSL and WUCO). Fourteen programs indicated they provide interprofessional patient care (IAUPR, ICO, MCO,

Table 1
Optometric Institutions Participating in IPE

U.S. College or School of Optometry	Participate in IPE	Program Requirement
Midwestern University Arizona College of Optometry (AZCOPT)	Yes	Yes
Inter American University of Puerto Rico School of Optometry (IAUPR)	Yes	No
Illinois College of Optometry (ICO)	Yes	No
Indiana University School of Optometry (IUSO)	No	No
Michigan College of Optometry at Ferris State University (MCO)	Yes	No
Massachusetts College of Pharmacy and Health Sciences School of Optometry (MCPHS)	Yes	Yes
New England College of Optometry (NECO)	Yes	Yes
NOVA Southeastern University College of Optometry (NOVA)	Yes	No
Northeastern State University Oklahoma College of Optometry (NSUOCO)	Yes	Yes
The Ohio State University College of Optometry (OSU)	Yes	No
Pennsylvania College of Optometry at Salus University (PCO)	Yes	Yes
Pacific University College of Optometry (PUCO)	Yes	No
University of the Incarnate Word Rosenberg School of Optometry (RSU)	Yes	No
Southern California College of Optometry at Marshall B. Ketchum University (SCCO)	Yes	No
Southern College of Optometry (SCO)	Yes	Yes
State University of New York College of Optometry (SUNY)	Yes	Yes
University of Alabama at Birmingham School of Optometry (UABSO)	Yes	Yes
University of California at Berkeley School of Optometry (UCB)	Yes	No
University of Houston College of Optometry (UHCO)	No	No
University of Missouri-St. Louis College of Optometry (UMSL)	Yes	No
Western University of Health Sciences College of Optometry (WUCO)	Yes	Yes

Figure 1
Examples of Interprofessional Practice Initiatives



MCPHS, NECO, NOVA, NSUOCO, PCO, PUCO, RSO, SCCO, SUNY, UABSO and WUCO). Eight institutions have partnerships with schools and programs outside of their own institution (ICO, MCPHS, NECO, NSUOCO, PCO, SCCO, SCO and UCB). Figure 1 shows examples of in-

terprofessional practice initiatives that are taking place at various institutions either within their programs or through partnerships with other colleges and universities.

Nineteen programs reported barriers for initiating or furthering IPE at their institution. The barriers to IPE noted

Table 2
Barriers to IPE

Lack of Physical Resources	Geographical Barriers	Lack of Funding	Lack of Trained Faculty	Cultural Barriers	Scheduling Conflicts	Lack of Interest	Lack of Process Knowledge	Lack of Administrative Support
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by member institutions are summarized in **Table 2**.

Those institutions housed in universities with other healthcare degree programs were more likely to offer formal IPE courses. Institutions housed outside university settings were more likely to offer patient care oriented interprofessional activities.

Optometric IPE Summit to Convene in 2016

The surveyed schools and colleges of optometry suggested a variety of ways ASCO might support IPE at member institutions. These included funding, such as grants, faculty training/workshops, suggestions for curriculum, consulting services, recommendations for IPE literature, advocacy for inclusion of optometry in IPE activities at the national level, facilitation of IPE becoming a standard part of accreditation, and an IPE conference at a national optometric forum.

As a result, ASCO plans to convene an optometric-sponsored IPE conference in February 2016. The Southern California College of Optometry at Marshall B. Ketchum University will be the host institution. All ASCO member institutions as well as representatives from other stakeholders in optometry and optometric education will be invited to participate.

The goals and objectives for the IPE Summit, agreed upon by members of the ASCO IPE and Collaborative Practice Committee, are:

Goal: To assemble representatives from ASCO member institutions and other champions of interprofessional collaboration

- create opportunities among attendees for networking and collaboration

- raise the role optometry plays in interprofessional healthcare teams
- identify synergies in obtaining grant funding for developing and sustaining IPE and IPP

Goal: Share current best practices in IPE and IPP

- communicate techniques, strategies and considerations for IPE and IPP, including engagement of optometry in team-based patient care
- identify outcome measures and tools to assess the impact of IPE and IPP on student learning

Goal: Share ideas on future development of IPE and IPP

- explore future options for enhanced engagement in IPE and IPP
- develop strategies to assess the impact of IPE and IPP on patient outcomes

Discussion

Schools and colleges of optometry must individually develop their own rationale regarding what interprofessional experiences are feasible and best-suited for their students. At the time of the survey, university-affiliated institutions and non-university-affiliated institutions were approaching IPE activities differently. The former were more likely to be using academic coursework with programs within their university setting, while non-university programs were more likely to be partnering with other colleges and universities for patient care-based opportunities.

It is important to note that by definition IPE is not simply students from different health professions sitting in a classroom for the same course, or working separately from one another in the same healthcare facility. Student interaction, whether in the classroom

or the patient care setting, is the defining feature of IPE and IPP. While many responding institutions report shared coursework or patient care, it is not clear from the survey results that these activities strictly meet the definition of IPE.

The impetus for IPE often comes from national and/or international calls for programs that promote interprofessional practice.¹¹ ASCO has been a national driving force to encourage its member institutions to have optometry included in IPE initiatives. There are strong reasons for optometry to participate in IPE programs. As adapted from the dental education literature these include:

1. Optometry is a critical component of the primary care system in the United States, and its practitioners must be able to communicate effectively with other primary care providers.
2. Management of chronic health conditions, such as diabetes, has consequences for patients' eye health.
3. Efficient and quality eye care for both prevention and treatment of eye disease can best be achieved when members of the eye healthcare team work together collaboratively as well as with members of other health professions.
4. With special consideration for the Affordable Care Act, optometry is increasingly expected to interact with community public health systems to improve access to care and implement community-wide preventive measures.¹²

Schools and colleges of optometry within the United States note barriers to the implementation of IPE and IPP. These barriers are consistent with those

noted in the literature and include:

1. Lack of skilled or experienced teachers for IPE and also for evaluating students' competencies needed to function as a member of a team.
2. Shortage of learning and teaching materials and other resources for learning teamwork skills.
3. A feeling among teachers that planning, consultation and evaluation make undue demands on their time.
4. Insufficient opportunities for on-the-job training because of lack of role models for teamwork in health services.
5. Differences in the schedules of work, both clinically and educationally, which make it difficult to prepare curricula.
6. Complexity of the design required for IPE and considerable commitment and time required to create and sustain it.
7. Learners' age, educational level and clinical experience.
8. Differences in academic policies.
9. Attitudinal barriers, including historical rivalries and fears of dilution of professional identities.^{4,6,13,14}

There is growing interest in IPE and in its education and research agenda to develop best practice models based on evidence of effectiveness.¹⁵ IPEC periodically holds conferences that provide attendees the tools necessary to design and implement interprofessional initiatives. A requirement for registration and attendance at these conferences, however, is for attendees to assemble a team with representation from several different health professions. This requirement creates an additional barrier to IPE at some schools and colleges of optometry, particularly those not housed within universities. At the time of ASCO's survey, representatives from 11 institutions had taken part in an IPEC-sponsored workshop (AZCOPT, IUSO, MCO, MCPHS, NECO, NOVA, PUCO, RSO, UABSO, UMSL and WUCO). Clearly the desire exists among member institutions to develop IPE and IPP activities for their students.

For IPE and IPP activities to produce the most benefit, it is important that activities adhere to principles of adult learning. These include the need to create authentic learning experiences that replicate real-life patient care experiences for the learners.¹⁶ Cooperative learning is another feature of effective activities that promote teamwork and the transfer and application of knowledge to patient care experiences.¹⁷

Interprofessional education and interprofessional practice experiences for students are a growing part of the optometric curriculum. As evident by the number of U.S. schools and colleges of optometry currently participating in IPE, ASCO members are embracing this important healthcare trend. In scheduling an optometry IPE summit, it is ASCO's goal to provide optometry degree programs with the tools they need to break through existing barriers to IPE. This will help member institutions more effectively prepare their students for the healthcare delivery system within which they will practice.

ASCO remains committed to monitoring and supporting the implementation, assessment and expansion of both IPE and IPP offerings at its member institutions with the ultimate goal of improving patient outcomes.

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APPENDIX



Survey of Interprofessional Education Programs in the Schools and Colleges of Optometry

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1. Does your program participate in interprofessional education (IPE) activities?

If you answered yes please proceed to question 2; if you answered no please proceed to question 14.

2. What other health professions' programs participate in IPE activities with your students?

3. Does your program require participation for all optometry students?

4. Do optometry faculty participate in interprofessional activities?

If yes, is it voluntary or required?

5. Does your University require interprofessional activities in any other health professional programs? I.e., does your pharmacy program require that their students participate in interprofessional programs?

6. Are the interprofessional programs in which optometry students participate formal courses?

If yes, what interprofessional courses are offered?

7. Check all that apply:

- We offer in-person interprofessional courses
- We offer on-line interprofessional courses
- We offer interprofessional courses that are a blend of in-person and on-line

8. Are these general education courses that students from multiple programs take together, such as basic or applied pharmacology, anatomy and physiology, etc?

9. Are these interactive courses where students learn together and teach each other?

If yes, please describe some of the topics and format:

10. Do students from multiple professions discuss cases in an interprofessional setting?

11. Do the students in your program provide patient care in an interprofessional setting?

12. Please list specific examples of innovative programs at your institution where students learn in teams with health profession students of different disciplines.

13. Does your institution partner with schools or programs outside of your university to offer opportunities for interprofessional education (health professions related or other)?

If you answered no, please skip to question 14. If you answered yes, please answer the following:

- How does your institution partner with schools or programs outside of your university and with what colleges or universities?
- What, if any, joint courses are offered and with what disciplines?

14. Are there barriers to initiating or furthering IPE at your institution?

15. Has your institution attended any IPEC sponsored workshops?

16. What could ASCO do to support IPE at your institution? (Check all that apply):

Don't Miss It

Check your Inbox on or around April 13 for the announcement that the Spring 2015 issue of ASCO's online newsletter *Eye on Education* is available.

In addition to the news from the schools and colleges and industry that you've come to expect, the issue will include updates on the Association's various initiatives.

In the meantime, you can visit the ASCO website at www.opted.org for a wealth of tools and information, including the latest press releases, Faculty Directory, Optometry Resident Directory, Annual Faculty Data Report and past issues of ASCO publications.