

Understanding, Facilitating, and Researching Interprofessional Education

The use of health-care teams began in the United States during World War II.¹ Since that time, several different terms have been used to describe how these clinical teams work together. In multidisciplinary teamwork, members from different disciplines provide care for a patient, but not necessarily in a coordinated, collaborative manner. With the physician as the lead, members from individual health-care disciplines provide care to the patient and communicate primarily through the physician.^{2,3} The perspective of each discipline is additive, not integrated.⁴ During the late 1960s, grant funding for community health centers as part of President Johnson's War on Poverty furthered the development of interdisciplinary teams in primary care.^{3,4} Individuals on an interdisciplinary team are organized around a set of problems. Clinical team members know the skills of individuals from other disciplines, which allows team members opportunities to consult with each other and to be aware of when and with whom to communicate. Thus, there is a blurring of roles within interdisciplinary teamwork, and the patient receives more coordinated care.^{3,4} Another term in the teamwork literature is interprofessional teamwork. The terms multidisciplinary and interdisciplinary have been used to describe the educational approach to care teams. The term interprofessional teamwork is the descriptor used for what occurs in clinical practice.¹

More recently, the term interprofessional has also been used to describe the education process where students from more than one profession learn with, from, and about each other with the goal of improving health outcomes when these future professionals enter the workforce.⁵ In this issue of *RESPIRATORY CARE*, Vernon et al⁶ surveyed respiratory care educators to determine their knowledge, attitudes, and perceived importance of interprofessional education (IPE). One challenge in this survey is that the respondents may not have had a common understanding of IPE or common experience practicing IPE. Educators of-

ten have not been introduced to IPE, have limited knowledge of IPE, or do not understand how to implement IPE in their institution. Thus, the survey responses reported in article by Vernon et al⁶ might not be measuring the same construct.

SEE THE ORIGINAL STUDY ON PAGE 873

Although interdisciplinary initiatives have been around since the 1950s, the practice did not become institutionalized. Federal funding for interdisciplinary team training decreased at the end of the 1970s, but a few initiatives from other sources continued. The Veterans Administration funded a geriatric interdisciplinary team training initiative in the 1980s, and other initiatives were funded in the 1990s by philanthropic organizations. A renewed interest in interdisciplinary teamwork emerged at the start of the 21st century due to the problems of meeting basic primary care needs for large proportions of the United States population. One strategy was to involve other disciplines in providing care.¹

The rationale for IPE does not appear to be questioned in the literature. The World Health Organization found that in the face of health workforce shortages, the development of collaborative practice is required, and preparing health-care workers who use collaborative practice will provide optimal health-service delivery that responds to local needs and improves health outcomes.⁵ Collaborative practice includes active participation of all health-care professions; enhances patient, family, and community goals; allows shared decision-making; and respects contributions by all providers. Relationship building and communication are learned together to achieve a common goal. Providers become more confident in their role to contribute their best. When learners learn alongside one another, patient care is enhanced.⁷

The greater challenge is how to implement IPE. The Framework for Action on Interprofessional Education and Collaborative Practice,⁵ an International World Health Organization Study Group, identified how to make collaborative teamwork happen. A competency-based approach to teaching collaborative practices includes how to work together and appreciate the learning styles and experience of other team members as well as understanding of self and

The authors have disclosed no conflicts of interest.

Correspondence: Ellen A Becker PhD RRT-NPS RPFT AE-C FAARC, Rush University, AAC Suite 750, 600 S. Paulina Street, Chicago, IL 60612. E-mail: Ellen_Becker@rush.edu.

DOI: 10.4187/respcare.05678

others and group skills. To work together, learners need to understand how teams work, including their purpose, roles, relationships, accountability, communication, and barriers. Attitudes, biases, assumptions, and role overlap within the team all need to be addressed and understood and are important to consider when providing opportunities to learn how to work together.

Limited time, resources, and institutional barriers contribute to the difficulty in incorporating IPE into course requirements for entry-level students.⁸ Vernon et al⁶ highlighted several themes where faculty responses from associate degree and bachelor's or master's degree programs differed. The credit limits for associate degree programs may have made it more likely for faculty in associate degree programs to feel that current curriculum requirements could not be removed for additional IPE education and that there were fewer resources and personnel to teach IPE courses. Educators will need to develop strategies to deal with these barriers. The development of IPE education may progress faster if educators network and share best educational practices.⁷

Educational research, IPE included, can be approached through one or more of Stufflebeam and Zhang's⁹ 4 themes of evaluation. Vernon et al⁶ in this issue of *RESPIRATORY CARE* addressed the first 2 evaluation themes of context and input. The authors explored respiratory care program characteristics that utilized IPE in their teaching, the degree of faculty involvement, faculty attitudes toward IPE, and which topics faculty felt were best suited to IPE. Evaluation of inputs included a description of the disciplines involved in IPE, the topics explored, how the academic degree awarded affected responses, the resources that were available for IPE, and administrative support for IPE.

Stufflebeam and Zhang's⁹ third evaluation theme is process. Often, newer areas of research borrow from more established fields. Early work in IPE evolved from theories of group dynamics, general systems, communication, and organizational development.¹⁰ As IPE theories emerge, scholars need to test which theories lead to the best outcomes. Although no specific theories were identified in the study by Vernon et al,⁶ the authors reported that respiratory care educators most commonly used case studies, clinical practice, and simulations for their instructional methods.

Researchers can also explore a fourth theme, which is the "product" or impact of the intervention. In other words, does interprofessional teamwork improve the care that we deliver to patients? Among the findings from Vernon et al,⁶ it was clear that respiratory care educators did not know how many hours of IPE were needed. This finding is not surprising, given the relative immaturity of IPE research. Future studies that carefully describe the IPE "dose" and measure outcomes of IPE with valid and reliable instruments will help educators to determine how much IPE education is needed in entry-level education.

As other researchers move forward to explore the best practices for IPE, it will be important not to ignore the significant literature that has been established over the past 5 decades in related work. Much of the results from these efforts appears in conference proceedings and may not emerge in searches for peer-reviewed literature.¹ Further, future research in this area should also include IPE for practitioners already in the workforce. If educators can accomplish these goals, current practitioners and new graduates will be more prepared for interdependent relationships with other professionals, and their patients and colleagues will benefit.

Ellen A Becker PhD RRT-NPS RPFT AE-C FAARC
Respiratory Care Program
Department of Cardiopulmonary Sciences
Rush University
Chicago, Illinois

**Karen S Schell DHSc RRT-NPS RRT-SDS RPFT
RPSGT AE-C CTTS**
Respiratory Care Education
University of Kansas Medical Center
Kansas City, Kansas

REFERENCES

1. Baldwin DWC. Some historical notes on interdisciplinary and interprofessional education and practice in health care in the USA. *J Interprof Care* 1996;10(2):173-187.
2. Körner M. Interprofessional teamwork in medical rehabilitation: a comparison of multidisciplinary and interdisciplinary team approach. *Clin Rehabil* 2010;24(8):745-755.
3. Hall P, Weaver L. Interdisciplinary education and teamwork: a long and winding road. *Med Educ* 2001;35(9):867-875.
4. Choi BC, Pak AW. Multidisciplinarity, interdisciplinarity and transdisciplinarity in health research, services, education and policy: 1. definitions, objectives, and evidence of effectiveness. *Clin Invest Med* 2006;29(6):351-364.
5. Gilbert JH, Yan J, Hoffman SJ. A WHO report: framework for action on interprofessional education and collaborative practice. *J Allied Health* 2010;39(Suppl 1):196-197.
6. Vernon MM, Moore NM, Cummins LA, Reyes SE, Mazzoli AJ, Heboyan V, De Leo G. Respiratory therapy faculty knowledge of and attitudes toward interprofessional education. *Respir Care* 2017; 62(7):873-881.
7. Gilbert JH. Interprofessional education for collaborative, patient-centred practice. *Nurs Leadersh* 2005;18(2):32-36, 38.
8. Curran V. Interprofessional education for collaborative patient-centred practice: Research synthesis paper. 2004. <https://www.med.mun.ca/getdoc/58a756d2-1442-42ed-915b-9295b6d315c6/Curran-Research-Synthesis-Paper.aspx>. Accessed May 9, 2017.
9. Stufflebeam DL, Zhang G. The CIPP evaluation model: how to evaluate for improvement and accountability. New York: Guilford Publications; 2017:20-55.
10. Heinemann GD, Zeiss AM. Team performance in health care: assessment and development. New York: Springer Science & Business Media; 2002:3-17.