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Interprofessional education in pediatric clerkships: A survey of pediatric educators in North America

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ABSTRACT

Background: Medical education organizations in the US and Canada recommend that interprofessional education (IPE) occur throughout health professions training. Prior studies have demonstrated few IPE activities in medical school clinical clerkship curricula.
Purpose: To determine the prevalence of IPE curricular activities in pediatric clerkships in North America.
Method: Through the Council on Medical Student Education in Pediatrics (COMSEP), faculty leaders in pediatric medical education were questioned about the prevalence of IPE activities in their pediatric clerkship, as well as their attitudes about IPE, including perceived barriers.
Results: Faculty leaders from 50% of all COMSEP member medical schools in the US and Canada responded. Overall, 29% (20/68) of clerkship directors or associate clerkship directors (CD's) stated that IPE activities existed in their medical school pediatric clerkship. Nearly 40% of these programs (8/18) did not offer IPE to all their students, owing to IPE activities being available only at certain times of the year or only at certain clerkship site locations. Among all IPE activities, nursing, pharmacy and physical therapy students participated most often with pediatrics medical students. CD's rated interprofessional communication competencies as the most important goal of the existing IPE programs. Barriers to IPE included insufficient faculty teaching time and poor alignment of academic calendars among health professions schools.
Conclusions: Despite IPE being a national curricular priority, more than 70% of pediatric clerkships in the US and Canada do not have structured IPE activities. Numerous barriers to implementing IPE exist.

Introduction

Interprofessional education (IPE) occurs when students from two or more professions learn about, from and with each other.[1] IPE is believed to be a necessary step along the path toward improved interprofessional collaboration and practice.[2–5] National medical education organizations have recommended that interprofessional education be stressed early and often in health professions training.[6–10] In 2011, an interprofessional collaborative representing medicine, nursing, public health and dentistry published competencies for interprofessional collaborative practice.[9] These four competency areas were defined as: values/ethics for interprofessional practice, teams and teamwork, roles and responsibilities, and interprofessional communication.[11] The Association of American Medical Colleges has recommended that all incoming residents be entrusted to collaborate as a member of an interprofessional team.[12] The Pediatric Milestone working group outlined subcompetencies and associated "milestones" that trainees and physicians should progress through. One of these subcompetencies refers to "work(ing) in interprofessional teams to enhance patient safety and improve patient care quality."[13] The Accreditation Council for Graduate Medical Education seeks to ensure that the learning environment for resident trainees includes interprofessional collaboration.[14] Lastly, the American Board of Pediatrics, in its development of Entrustable Professional Activities

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for General Pediatrics lists, "Lead an interprofessional healthcare team."[15]

Inadequate preparation for health professionals working together, especially in interprofessional teams, has been implicated in a range of adverse outcomes, including lower provider and patient satisfaction, greater numbers of medical errors and other patient safety issues, low workforce retention, system inefficiencies resulting in higher costs, and suboptimal community engagement.[1,5,16,17] Interprofessional collaboration may lead to safer patient care. A link between interprofessional conflict and medical errors has been shown in a study of multi-specialty hospital residents.[18] In turn, these medical errors can create negative emotions in providers.[19]

Implementing IPE in all aspects of a medical education curriculum is important, but it is particularly so in pediatrics for three reasons. First, children require unique coordination and advocacy within the healthcare system.[20–22] Second, this population is particularly vulnerable to system errors.[23] Third, interprofessional care models focused on improving health outcomes in pediatric conditions, such as oral health and childhood asthma, are increasingly being established.[24–26]

Despite some evidence demonstrating benefits of effective interprofessional collaborative practice,[17] and despite Canadian and US standards and educational guidelines that span the continuum across medical school training and residency training,[6,7,13,15] many medical schools do not comprehensively address IPE in their undergraduate medical curricula. A 2009 survey of internal medicine clerkship directors demonstrated that 68% of CD's felt IPE is important to the practice of internal medicine, and 57% felt IPE should be part of the undergraduate medical curriculum during the clinical clerkships or sub-internships, but only 19% included IPE in their internal medicine clerkship curriculum.[27] In a 2012 survey of family medicine clerkship directors (CD's) in the U.S., 61% of clerkship directors felt that students experienced interprofessional teamwork in the clinics but only 38% of CD's offered specific interprofessional education as part of the clerkship.[28]

Given the importance of IPE in health professions training, the unique healthcare needs of children, and the linkages of effective interprofessional collaboration with improved patient safety and possible health outcomes in children, we sought to explore the existing curricular implementation of IPE in pediatrics clerkships. Our primary aim was to survey leaders of pediatric clerkships to obtain information on the prevalence of interprofessional education in pediatrics clinical rotations in US and Canada, while also determining the attitudes of pediatrics clerkship directors towards IPE. We also sought to explore any barriers associated with establishing IPE in pediatrics clerkships in the United States and Canada. Our approach to gather this information was to survey members of the primary pediatric undergraduate medical education organization.

Material and methods

Survey development and administration

The Council on Medical Student Education in Pediatrics (COMSEP) is comprised of members responsible for pediatric medical student education – primarily pediatric clerkship directors and associate directors (CDs), as well as other pediatric faculty teachers and education administrators from across the United States and Canada. The COMSEP Survey Committee, comprised of five members with experience in survey delivery and administration, develops the final questionnaire. For 2012, the length of the survey varied depending on specific responses given (up to 108 items) and was designed to take approximately 20 min to complete. The COMSEP Survey Committee members initially pilot tested the questionnaire and made edits that were then forwarded to the COMSEP executive committee (10 elected COMSEP members) for further revision to produce the final survey design.

All COMSEP members received a personalized link via e-mail to the online survey; those who did not respond were sent a maximum of 3 reminder e-mails, one every 3 weeks. Data were collected from October 2012 through December 2012, and participants' answers were stored in a confidential database. After de-identification of the participants, an anonymous database was made available for analyses. To avoid duplicate responses from individual medical schools by multiple faculty members, only the responses of CDs were used for data analysis.

Survey content

The first 19 survey questions assessed general demographic information. A subset of the survey's overall questions related to IPE. Respondents were informed of the World Health Organization definition of IPE at the beginning of the IPE questions. This definition is stated, "Interprofessional education occurs when students from two or more professions learn about, from and with each other."[1] Respondents were asked only about activities that occur within their pediatric clerkship and to exclude interdisciplinary experiences if they did not include students from other professions. There were 12 questions in total; 9 multiple-choice questions seeking to characterize existing IPE activities, 2 multi-part Likert scale-rating questions designed to identify barriers and characterize attitudes toward IPE and a single question estimating the total number of hours dedicated to IPE.

Data analysis

Descriptive statistics were used to analyze the data. The Johns Hopkins University School of Medicine Institutional Review Board felt that the COMSEP survey research protocol did not meet the definition of human subjects research. The research did not receive any specific grant from funding agencies or the public, commercial or non-for-profit sectors.

Results

A total of 490 surveys were e-mailed to COMSEP members representing 147 medical schools in the United States and Canada. The overall membership response rate to the larger survey was 38% (184 of 490). However, the subset of responses from CDs who answered questions regarding IPE represented 50% of all schools (74 of 147) (Fig. 1).

Overall, 29% (20/68) of respondents reported IPE activities in the pediatric clerkship at their school (Fig. 1). Within these programs only 56% (10/18) delivered IPE to all of their students, while at other programs IPE was either offered only at certain clerkship sites (28%; 5/18) or during certain times of the year (17%; 3/18). Nursing, pharmacy and physical therapy students were identified by 14 of 16 respondents as the most common student groups to learn alongside medical students. Altogether, 14 different student groups were identified; 1 program listed engineering students and 1 program listed dental students.

Among programs with IPE, teaching in the clinical setting was the most commonly employed educational modality (59%; 10/17), followed by role modeling (47%; 8/17), simulation (41%; 7/17) and small group discussion (29%: 5/17). The majority of these activities were not graded (90%; 17/19) but 2 programs reported that IPE activities are graded as pass/fail.