ESTABLISHING A MEDICAL EDUCATION RESEARCH NETWORK FOR THE PEDIATRIC SUBSPECIALTIES

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Introduction

- The challenge to meaningful research in medical education is the need for large sample sizes so that innovative approaches can be adequately assessed
- Trainees also need to be evaluated in different educational settings to understand what functions well in which environment and why or why not
- Data obtained from studies of resident education may not be applicable to fellows since faculty have more longitudinal experiences with fellows
- There is a need to develop a medical education research network to improve the education and assessment of pediatric subspecialty trainees

Objective

The objective was to create a pediatric subspecialty medical education research network that could be used to establish best practices in the education and assessment of pediatric fellows.

Methods

- The Subspecialty Pediatrics Investigator Network (SPIN) was conceived as a collaborative effort of CoPS, APPD LEARN, the ABP and the APPD Fellowship Committee
- Goal was to take advantage of the expertise of each group
- Each subspecialty identified up to 2 representatives
    - these individuals, along with the organizational leaders, comprised the SPIN Steering Committee

Methods

Specific roles were defined for each group:

CoPS
- supervise recruitment of programs via subspecialties
- maintain list of participating programs
- coordinate IRB application (especially to identify programs from same institution)
- point of contact for subspecialties
- prepare data for presentations
- organize calls and meetings

APPD LEARN
- assist with IRB application
- assist with creation of learner identifiers
- develop web-based data collection tools
- manage and "cleanup" data
- perform data analysis

Subspecialty Representatives
- recruit programs within their subspecialty
- provide instruction to programs about study and data entry
- assist with IRB submission
- assist with program compliance with data collection

ABP
- provide expertise regarding study question and design

APPD Fellowship Executive Committee
- assist with subspecialty recruitment
- disseminate information
- All stakeholders provided input into study design
- In its initial project, SPIN conducted a study evaluating entrustment decisions for the common pediatric subspecialty Entrustable Professional Activities (EPAs)
- goal of > 20% program participation for each subspecialty
- data collected in the fall 2014 & spring 2015

Results

Table 1. Summary of Participation in the EPA Study

Study Participation	Fall 2014	Spring 2015
Institutions	78	81
Programs (n)	208	209
Subspecialties with Program Participation > 20% (%)	79	79
Total Number of Fellows	1011	1036
1st year fellows (n)	352	369
2nd year fellows (n)	332	336
3rd year fellows (n)	327	331

- All14 pediatric subspecialties with ABP certification contributed data
- Most subspecialties met the criteria for > 20% participation of programs in the subspecialty (table 1)
- Data from a large number of fellows, representing all 3 years of fellowship, were obtained

Table 2. Participation of individual subspecialty programs in the EPA Study*

Subspecialty Participation	Fall 2014	Spring 2015
Adolescent Medicine	10 (36%)	11 (39%)
Cardiology	14 (25%)	12 (21%)
Child Abuse	10 (40%)	10 (40%)
Critical Care	24 (38%)	21 (33%)
Developmental & Behavioral	17 (46%)	18 (49%)
Emergency Medicine	19 (26%)	19 (26%)
Endocrinology	12 (18%)	14 (21%)
Gastroenterology	11 (19%)	10 (18%)
Hematology-Oncology	14 (20%)	13 (19%)
Infectious Diseases	14 (23%)	16 (26%)
Neonatology	33 (34%)	35 (36%)
Nephrology	7 (16%)	6 (13%)
Pulmonary	12 (23%)	13 (25%)
Rheumatology	11 (32%)	11 (32%)

*percentage based upon number of ACGME accredited pediatric subspecialty fellowships in 2015

Results

- Neonatology and Critical Care had the highest number of programs participating (table 2)
- Developmental-Behavioral Pediatrics and Child Abuse enrolled the greatest percentage of programs (table 2)
- Overall, 27% of all ACGME accredited pediatric subspecialty programs participated
- Based upon data from the EPA study, 7 abstracts have been accepted to 3 different meetings (ACGME, APPD & PAS)

Conclusions

- A pediatric subspecialty medical educational network, SPIN, representing all ABP-certified pediatric subspecialties, was successfully created and utilized
- This Network provides a critical infrastructure for evaluating the education of fellows and also provides a repository for data that can be utilized in further studies

SPIN Steering Committee

Adolescent Medicine: Sarah Pitts; Cardiology: Gina Baffa; Child Abuse: Bruce Herman; Critical Care: David Turner; Developmental & Behavioral Pediatrics: Jill Fussell & Pam High; EM: Deb Hsu; Endocrinology: Dianne Stafford & Tandy Aye; GI: Cary Sauer; Heme-Onc: Jennifer Kesselheim; ID: Angie Myers & Kammy McGann; Neonatology: Christiane Dammann & Patricia Chess; Nephrology: John Mahan; Pulmonary: Pnina Weiss; Rheumatology: Megan Curran; APPD LEARN: Alan Schwartz; ABP: Carol Carraccio; APPD Fellowship Committee: Bruce Herman; CoPS: Richard Mink

Collaborators